AGENDA

JOINT REGULAR MEETING
OF THE
ENGINEERING AND OPERATIONS COMMITTEE
AND
SPECIAL MEETING OF THE BOARD OF DIRECTORS
OF THE
RANCHO CALIFORNIA WATER DISTRICT

Board Room
42135 Winchester Road
Temecula CA 92590

April 30, 2026
8:30 AM

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

ADDITIONS TO AGENDA

Items may be added to the Agenda in accordance with Section 54954.2(b)(2) of the Government Code (Brown Act), upon a determination by a two-thirds vote of the members of the legislative body present at the meeting, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the Rancho California Water District (District) after the Agenda was posted.

APPROVAL OF AGENDA

PUBLIC COMMENT

Any person may address the Committee at this time upon any subject not identified on this Agenda but within the jurisdiction of the Rancho California Water District. Please note that for items not listed on the agenda, the Brown Act imposes limitations on what the Committee may do at this time. The Committee may not take action on the item at this meeting. As to matters on the Agenda, persons will be given an opportunity to address the Committee when the matter is considered. If you wish to speak during public comment, please fill out a "Speaker Request Form" and give it to the Recording Secretary. When the Committee Chairman calls your name, please immediately step to the podium and begin by giving your name and address for the record. Each speaker will be given three (3) minutes to address the Committee.

1. **ACTION ITEMS**

   A. Review and Consider Resolution Adopting Revised 2026 Local Guidelines for Implementing the California Environmental Quality Act (CEQA)

   B. Review and Recommend Approval of Publishing the Unclaimed Funds Report

   C. Review of 2026 Water Shortage Contingency Plan and Consider Approval of a Public Hearing

   D. Review of 2025 Urban Water Management Plan (UWMP) and Consider Approval of a Public Hearing

2. **INFORMATION ITEMS**

   A. Review of 2025 Water Loss Audit Results

   B. Project Status Report - March/April 2026

   C. Operations Reports - February/March 2026

   D. Assistant General Manager's Report - Update of Helicopter Dip Tanks, Sundance Property Clean-up, and Administration Building Balcony Design

3. **ADJOURNMENT**

This Committee meeting is also noticed as a special meeting of the Board of Directors because a quorum of the Board may be present. Members of the Board who are not members of the Committee may attend and participate in the meeting, but only members of the Committee may make, second, or vote on any motion or other action of the Committee.

Any actions taken pursuant to this agenda will be actions within the purview of the Committee and shall be approved by an affirmative vote of a majority of the quorum of the Committee. The Committee is not empowered to act for or on behalf of the Board or the District unless exercising delegated authority from the Board. Any actions taken by the Committee shall be deemed recommendations of the Committee for future consideration by the Board at a separately noticed regular or special meeting of the Board of Directors. The Board of Directors retains all powers, privileges, and duties to exercise and perform the business of the District.

This agenda will be made available in appropriate alternative formats to persons with disabilities upon request, as required by Section 202 of the Americans with Disabilities Act of 1990. If possible, any person with a disability who requires a modification or accommodation to participate in a meeting should direct such a request to the District Secretary at (951) 296-6900 at least 48 hours before the meeting.

Any writings or documents provided to a majority of the members of the Board of Directors regarding any item on this agenda will be made available for public inspection at the District's Administrative Headquarters Building located at 42135 Winchester Road, Temecula, California, during normal business hours.

Board Members of the Rancho California Water District
Engineering and Operations Committee
John Rossi, Chairman
JD Harkey, Member
Bill Plummer, Member
Bill Wilson, Alternate

Attest to Posting:
/s/ Betinna Prescott — *April 23, 2026, at 4:30 PM Website and Rancho Water HQ*
Bettinna Prescott, Deputy District Secretary — *Date and Time of Posting*

Rancho Water

COMMITTEE ACTION

ENGINEERING AND OPERATIONS COMMITTEE

April 30, 2026

ITEM 1.A: **Review and Consider Resolution Adopting Revised 2026 Local Guidelines for Implementing the California Environmental Quality Act (CEQA)**

RESPONSIBLE/LEAD STAFF MEMBER(S):

Nik Lyuber, Director of Engineering

RECOMMENDATIONS:

Staff requests the Engineering and Operations Committee (Committee) recommend the Board of Directors (Board) approve a resolution adopting the Local Guidelines for Implementing the California Environmental Quality Act (CEQA), 2026 Revision. Staff also requests the Committee recommend the Board incorporate said document into the Administrative Code, Part III – Engineering, Operations, and Maintenance of the District, Chapter 3 - Local Guidelines for Implementing the California Environmental Quality Act.

DISCUSSION:

The California Environmental Quality Act, as contained in the Public Resources Code, Sections 21000 et seq., is California's most comprehensive environmental law requiring all public agencies within the state to evaluate the environmental effects of their actions before they are taken. CEQA also aims to prevent significant environmental effects resulting from agency actions by requiring agencies to avoid or, when feasible, reduce the significant environmental impacts of their decisions. To this end, CEQA requires all public agencies to adopt specific objectives, criteria, and procedures for evaluating public and private projects that are undertaken or approved by such agencies.

Rancho California Water District's (District) legal counsel, Best Best & Krieger, LLC (BBK), prepared a proposed updated set of Local CEQA Guidelines (Guidelines) for 2026 in compliance with CEQA's requirements. These Guidelines reflect recent changes within the Public Resources Code, the State CEQA Guidelines, and relevant court opinions and provide instructions and forms for preparing all environmental documents required under CEQA.

Attached for the Committee's information is a copy of the proposed Guidelines, along with a BBK memorandum summarizing the substantive amendments. Staff prepared and attached a draft resolution for use in adopting the proposed 2026 Guidelines.

ALTERNATIVES:

Not applicable

FISCAL ANALYSIS:

No fiscal impact is anticipated as a result of the adoption of the updated Guidelines.

ENVIRONMENTAL REQUIREMENTS:

No environmental impact is anticipated as a result of the adoption of the updated Guidelines. The District's adoption of the attached resolution is not a project under the State CEQA Guidelines, Section 15378(b)(5), as it involves an administrative activity involving process only and would not result in any environmental impacts.

EXHIBITS/ATTACHMENTS:

1. 2026 CEQA Memorandum-Summary of Changes
2. 2026 CEQA Guidelines
3. CEQA_Resolution-2026-5-Draft

Memorandum

TO: Project 5 District Client

FROM: Best Best & Krieger LLP

DATE: March 31, 2026

RE: Summary of Changes to Local CEQA Guidelines

In 2025, the California Legislature revised the California Environmental Quality Act ("CEQA") through passage of certain Assembly Bills and Senate Bills. As a result, we have revised the District's Local Guidelines for Implementing CEQA ("Local Guidelines") to account for these CEQA developments. This memorandum summarizes the substantive amendments to the District's 2026 Local CEQA Guidelines ("Local Guidelines").

The Local Guidelines and this memorandum are designed to help the District comply with CEQA when considering a project subject to CEQA. We still recommend, however, that you consult with an attorney when you have specific questions on major, controversial, or unusual projects or activities.

The Local Guidelines, the related CEQA forms, and other important legal alerts may be accessed via the Best Best & Krieger LLP CEQA client portal. For technical support, please contact Tammy Ingram at tammy.ingram@bbklaw.com.

REVISIONS TO LOCAL GUIDELINES

3.12 Exemption for Agricultural Housing Development

A new subsection B(2) was added to Section 3.12 as a result of the passing of Senate Bill 131. CEQA does not apply to an agricultural housing development maintained and operated by a qualified affordable housing organization that meet the requirements set forth in Section 3.12.

3.20 Exemption for Certain Housing Development Projects That Are 20 Acres or Less in Size

Pursuant to Assembly Bill 130, a new Section 3.20 was added to the Guidelines for qualifying housing development projects that are 20 acres or less in size and meet specific criteria.

3.22 Transit Prioritization Projects

A new subsection (5) was added to Section 3.22 regarding an exemption for a transit

prioritization project for the protection, improvement, institution, or increase of microtransit, paratransit, shuttle, bus, ferry, bus rapid transit, or light trail service. Subsection (7) also extends this exemption for a public project for the institution or increase of certain passenger rail services until January 1, 2040. Lastly, this section is revised to extend this exemption for covering transportation-related projects, such as pedestrian and bicycle facilities, transit prioritization projects, public projects located in an urbanized area or urban cluster, and public projects for the construction or maintenance of infrastructure of facilities to charge, refuel or maintain zero-emission public transit until January 1, 2040.

3.23 Transportation Plans, Pedestrian Plans, and Bicycle Transportation Plans

Section 3.23 was revised to exempt from CEQA a transit comprehensive operational analysis, transit route readjustment, or other transit agency route addition, elimination, or modification. For purposes of this section, Section 3.23 was revised to exempt "Transit Comprehensive Operational Analysis", meaning a plan that redesigns or modifies a transit operator's or local agency's public transit service network, including the routing of fixed route and microtransit services.

3.24 Facilities Supporting High-Speed Rail

Section 3.24 was added to exempt from CEQA certain projects that consist of the development, construction, or operation of a heavy maintenance facility for electrically powered high-speed rail if certain conditions outlined in Section 3.24 are met. This section also exempts a project that consists of the development, construction, or modification of a proposed passenger rail station, or design changes to a passenger rail station, for the purpose of serving electrically powered high-speed rail, if certain conditions outlined in Section 3.24 are met.

3.25 Certain Public Park and Trail Projects

Pursuant to Assembly Bill 1139, Section 3.25 was added to exempt any activity or approval necessary for or incidental to planning, design, site acquisition, construction, operation, or maintenance of public park or nonmotorized recreational trail facilities funded in whole or in part by the Safe Drinking Water, Wildfire Prevent, Drought Preparedness, and Clear Air Bond Act of 2024.

3.29 State Funded Community Water Systems

Section 3.29 was added to exempt from CEQA a community water system that is funded pursuant to the Safe Drinking Water, Wildfire Prevention, Drought Preparedness, and Clean Air Bond Act of 2024 or the State Water Resources Control Board's Safe and Affordable Funding for Equity and Resilience program that does not otherwise include any construction activities if the project meets certain criteria outlined in Section 3.29.

3.30 Wildfire Risk Reduction Projects

Pursuant to Senate Bill 131, Section 3.30 was added to exempt certain wildfire risk reduction projects that meet the criteria specified in Section 3.30.

3.31 Wildfire Defensible Space Requirements

Pursuant to Assembly Bill 1455, Section 3.31 was added to exempt from CEQA ordinances, designed by a local agency responsible for fire protection, designating defensible space requirements based on regulations promulgated by the State Board of Forestry and Fire Protection.

3.34 Daycare Centers, Rural Health Clinics, Food Banks, and Advances Manufacturing Facilities

Section 3.34 was added to exempt from CEQA projects that consist exclusively of daycare centers, rural health clinics, food banks, and advanced manufacturing facilities if certain criteria outlined in Section 3.34 are met.

9.03 Streamlined, Ministerial Review for Adaptive Reuse Projects

Pursuant to Assembly Bill 507, Section 9.03 was added to exempt from CEQA an adaptive reuse project that retrofits and repurposes an existing building to create new residential or mixed uses including office conversion projects.

9.04 Housing Development Project Located in Areas of Smaller Populations

Pursuant to Senate Bill 158, Section 9.04 was added to clarify that CEQA does apply to a housing development that is: (1) located in a city with a population of more than 85,000 but less than 95,000, as determined by the 2020 Census, (2) located in a county with a population of more than 440,000 but less than 455,000, as determined by the 2020 Census, (3) a portion of the parcel where the project is located is identified on a United States Fish and Wildlife Service map as freshwater forested or shrub wetland; and (4) a portion of the parcel where the project is located is within a regulatory floodway.

9.14 "Near Miss" Streamlined Housing Development Project

Pursuant to Senate Bill 131, Section 9.14 was added to establish a streamlined CEQA process for housing development projects that narrowly fail to qualify for certain CEQA exemptions due to a single disqualifying condition. In such "near miss" instances, it limits CEQA review to those environmental effects caused solely by that condition, and waives the need for analysis of project alternatives, cumulative impacts, and growth-inducing effects. However, these "near miss" provisions do not apply to projects with multiple disqualifying

conditions, or to projects involving distribution centers, oil and gas infrastructure, or on protected lands.

10.03 Administrative Record

Pursuant to Senate Bill 131, Section 10.03(A)(10) was revised to narrow the scope of the administrative record. It clarifies that, with limited exceptions, staff notes and internal agency communications (like emails) are not required to be included in the administrative record if they were not presented to the project's final decision-making body.

Other Changes

CEQA Document Filing Fees

Effective January 1, 2026, the Department of Fish and Wildlife has increased its fees. For a Negative Declaration or a Mitigated Negative Declaration, the new filing fee is $3,043.75 (see Section 6.24); for an EIR, the new filing fee is $4,227.50 (see Section 7.42); and for an environmental document prepared pursuant to a Certified Regulatory Program, the new filing fee is $1,437.25.

Conclusion

As always, CEQA remains complicated and, at times, challenging to apply. The only constant in this area of law is how quickly the rules change. Should you have questions about any of the provisions discussed above, please contact a BB&K attorney for assistance.

BEST BEST & KRIEGER LLP



CEQA Guidelines

2026

Prepared For:

Rancho California Water District

Local Guidelines for Implementing the California Environmental Quality Act

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Indian Wells | Irvine | Los Angeles | Manhattan Beach |Ontario | Riverside | Sacramento | San Diego | Walnut Creek | Washington DC | Bend OR

2026

LOCAL GUIDELINES

FOR IMPLEMENTING THE

CALIFORNIA ENVIRONMENTAL QUALITY ACT

FOR

RANCHO CALIFORNIA WATER DISTRICT

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LOCAL GUIDELINES
FOR IMPLEMENTING THE
CALIFORNIA ENVIRONMENTAL QUALITY ACT

(2026)

1. GENERAL PROVISIONS, PURPOSE AND POLICY.

1.01 GENERAL PROVISIONS.

These Local Guidelines ("Local Guidelines") are to assist the Rancho California Water District ("District") in implementing the provisions of the California Environmental Quality Act ("CEQA"). These Local Guidelines are consistent with the Guidelines for the Implementation of CEQA ("State CEQA Guidelines"), which have been promulgated by the California Natural Resources Agency for the guidance of state and local agencies in California. These Local Guidelines have been adopted pursuant to California Public Resources Code section 21082.

1.02 PURPOSE.

The purpose of these Local Guidelines is to help the District accomplish the following basic objectives of CEQA:

(a) To enhance and provide long-term protection for the environment, while providing a decent home and satisfying living environment for every Californian;
(b) To provide information to governmental decision-makers and the public regarding the potential significant environmental effects of the proposed project;
(c) To provide an analysis of the environmental effects of future actions associated with the project to adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences of the project;
(d) To identify ways that environmental damage can be avoided or significantly reduced;
(e) To prevent significant avoidable environmental damage through utilization of feasible project alternatives or mitigation measures; and
(f) To disclose and demonstrate to the public the reasons why a governmental agency approved the project in the manner chosen. Public participation is an essential part of the CEQA process. Each public agency should encourage wide public involvement, formal and informal, in order to receive and evaluate public reactions to environmental issues related to a public agency's activities. Such involvement should include, whenever possible, making environmental information available in electronic format on the Internet, on a web site maintained or utilized by the public agency.

1.03 APPLICABILITY.

These Local Guidelines apply to any activity that constitutes a "project," as defined in Local Guidelines Section 11.59, for which the District is the Lead Agency or a Responsible Agency. These Local Guidelines are also intended to assist the District in determining whether a

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proposed activity constitutes a project that is subject to CEQA review, or whether the activity is exempt from CEQA.

1.04 REDUCING DELAY AND PAPERWORK.

The State CEQA Guidelines encourage local governmental agencies to reduce delay and paperwork by, among other things:

(a) Integrating the CEQA process into early planning review; to this end, the project approval process and these procedures, to the maximum extent feasible, are to run concurrently, not consecutively;
(b) Identifying projects which fit within categorical or other exemptions and are therefore exempt from CEQA processing;
(c) Using initial studies to identify significant environmental issues and to narrow the scope of Environmental Impact Reports (EIRs);
(d) Using a Negative Declaration when a project, not otherwise exempt, will not have a significant effect on the environment;
(e) Consulting with state and local responsible agencies before and during the preparation of an EIR so that the document will meet the needs of all the agencies which will use it;
(f) Allowing applicants to revise projects to eliminate possible significant effects on the environment, thereby enabling the project to qualify for a Negative Declaration rather than an EIR;
(g) Integrating CEQA requirements with other environmental review and consultation requirements;
(h) Emphasizing consultation before an EIR is prepared, rather than submitting adverse comments on a completed document;
(i) Combining environmental documents with other documents, such as general plans;
(j) Eliminating repetitive discussions of the same issues by using EIRs on programs, policies or plans and tiering from statements of broad scope to those of narrower scope;
(k) Reducing the length of EIRs by means such as setting appropriate page limits;
(l) Preparing analytic, rather than encyclopedic, EIRs;
(m) Mentioning insignificant issues only briefly;
(n) Writing EIRs in plain language;
(o) Following a clear format for EIRs;
(p) Emphasizing the portions of the EIR that are useful to decision-makers and the public and reducing emphasis on background material;
(q) Incorporating information by reference; and
(r) Making comments on EIRs as specific as possible.

1.05 COMPLIANCE WITH STATE LAW.

These Local Guidelines are intended to implement the provisions of CEQA and the State CEQA Guidelines, and the provisions of CEQA and the State CEQA Guidelines shall be fully complied with even though they may not be set forth or referred to herein.

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1.06 TERMINOLOGY.

The terms "must" or "shall" identify mandatory requirements. The terms "may" and "should" are permissive, with the particular decision being left to the discretion of the District.

1.07 PARTIAL INVALIDITY.

In the event any part or provision of these Local Guidelines shall be determined to be invalid, the remaining portions that can be separated from the invalid unenforceable provisions shall continue in full force and effect.

1.08 ELECTRONIC DELIVERY OF COMMENTS AND NOTICES.

Individuals may file a written request to receive copies of public notices provided for under these Local Guidelines or the State CEQA Guidelines. The requestor may elect to receive these notices via email rather than regular mail. Notices sent by email are deemed delivered when the staff person sending the email sends it to the last email address provided by the requestor to the District. Any request to receive public notices shall be in writing and shall be renewed annually.

Individuals may also submit comments on the CEQA documentation for a project via email. Comments submitted via email shall be treated as written comments for all purposes. Comments sent to the District via email are deemed received when they actually arrive in an email account of a staff person who has been designated or identified as the point of contact for a particular project.

The District must also post certain environmental documents (such as Draft and Final Environmental Impact Reports, Draft Negative Declarations, and Draft Mitigated Negative Declarations) and CEQA notices (such as Notices of Preparation, Notices of Availability, Notices of Intent to Adopt a Negative Declaration, Notices of Exemption, and Notices of Determination) on its website, if any.

(Reference: Pub. Resources Code, §§ 21082.1, 21091(d)(3), 21092.2.)

1.09 THE DISTRICT MAY CHARGE REASONABLE FEES FOR REPRODUCING ENVIRONMENTAL DOCUMENTS.

A public agency may charge and collect a reasonable fee from members of the public that request a copy of an environmental document, so long as the fee does not exceed the cost of reproduction. The kinds of "environmental documents" that CEQA specifically allows public agencies to seek reimbursement for include: initial studies, negative declarations, mitigated negative declarations, draft and final EIRs, and documents prepared as a substitute for an EIR, negative declaration, or mitigated negative declaration.

The District shall make CEQA-related documents (e.g., Negative Declarations, Mitigated Negative Declarations, Draft EIRs, Final EIRs, and notices relating to these documents) available to the public-at-large on its website. Requests for documents made pursuant to the California Public Records Act must comply with the Government Code. (See, for example, Government Code section 7922.570 for information regarding providing documents in electronic format.)

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1.10 TIME OF PREPARATION

Before granting any approval of a non-exempt project subject to CEQA, the Lead Agency or Responsible Agency shall consider either (1) a Final EIR, (2) a Negative Declaration, (3) a Mitigated Negative Declaration, or (4) another document authorized by the State CEQA Guidelines to be used in the place of an EIR or Negative Declaration (e.g., an Addendum, a Supplemental EIR, a Subsequent EIR, etc.).

Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs, Negative Declarations, and Mitigated Negative Declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment.

With public projects, at the earliest feasible time, project sponsors shall incorporate environmental considerations into project conceptualization, design, and planning. CEQA compliance should be completed prior to acquisition of a site for a public project.

To implement the above principles, the District shall not undertake actions concerning the proposed public project that would have a significant adverse effect or limit the choice of alternatives or mitigation measures, before completion of CEQA compliance. For example, the District shall not:

(A) Formally make a decision to proceed with the use of a site for facilities which would require CEQA review, regardless of whether the District has made any final purchase of the site for these facilities, except that the District may designate a preferred site for CEQA review and may enter into land acquisition agreements when the District has conditioned its future use of the site on CEQA compliance.

(B) Otherwise take any action that gives impetus to a planned or foreseeable project in a manner that forecloses alternatives or mitigation measures that would ordinarily be part of CEQA review of that public project.

With private projects, the District shall encourage the project proponent to incorporate environmental considerations into project conceptualization, design, and planning at the earliest feasible time.

While mere interest in, or inclination to support, a project does not constitute approval, a public agency entering into preliminary agreements regarding a project prior to approval shall not, as a practical matter, commit the agency to the project. For example, the District shall not grant any vested development entitlements prior to compliance with CEQA. Further, any such pre-approval agreement should, for example:

(A) Condition the agreement on compliance with CEQA;
(B) Not bind any party, or commit any party, to a definite course of action prior to CEQA compliance;

(C) Not restrict the Lead Agency from considering any feasible mitigation measures and alternatives, including the "no project" alternative; and

(D) Not restrict the Lead Agency from denying the project.

The District's environmental document preparation and review should be coordinated in a timely fashion with the District's existing planning, review, and project approval processes. These procedures, to the maximum extent feasible, are to run concurrently, not consecutively.

(See State CEQA Guidelines, § 15004; *Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116.)

1.11 STATE AGENCY FURLOUGHS.

Due to budget concerns, the State may institute mandatory furlough days for state government agencies. Local agencies may also change their operating hours.

Because state and local agencies may enact furloughs that limit their operating hours, if the District has time-sensitive materials or needs to consult with a state agency, the District should check with the applicable state agency office or with the District's attorney to ensure compliance with all applicable deadlines.

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2. LEAD AND RESPONSIBLE AGENCIES

2.01 LEAD AGENCY PRINCIPLE.

The District will be the Lead Agency if it will have principal responsibility for carrying out or approving a project. Where a project is to be carried out or approved by more than one public agency, only one agency shall be responsible for the preparation of environmental documents. This agency shall be called the Lead Agency.

(Reference: State CEQA Guidelines, §§ 15050, 15367.)

2.02 SELECTION OF LEAD AGENCY.

Where two or more public agencies will be involved with a project, the Lead Agency shall be designated according to the following criteria:

(a) If the project will be carried out by a public agency, that agency shall be the Lead Agency even if the project will be located within the jurisdiction of another public agency; or

(b) If the project will be carried out by a nongovernmental person or entity, the Lead Agency shall be the public agency with the greatest responsibility for supervising and approving the project as a whole.

The Lead Agency will normally be the agency with general governmental powers, rather than an agency with a single or limited purpose. (For example, a district that will provide a public service or utility to the project serves a limited purpose.) If two or more agencies meet this criteria equally, the agency that acts first on the project will normally be the Lead Agency.

If two or more public agencies have a substantial claim to be the Lead Agency under either (a) or (b), they may designate one agency as the Lead Agency by agreement. An agreement may also provide for cooperative efforts by contract, joint exercise of powers, or similar devices. If the agencies cannot agree which agency should be the Lead Agency for preparing the environmental document, any of the disputing public agencies or the project applicant may submit the dispute to the Office of Land Use and Climate Innovation ("LCI"), formerly Office of Planning and Research. Within 21 days of receiving the request, LCI will designate the Lead Agency. LCI shall not designate a Lead Agency in the absence of a dispute. A "dispute" means a contested, active difference of opinion between two or more public agencies as to which of those agencies shall prepare any necessary environmental document. A dispute exists when each of those agencies claims that it either has or does not have the obligation to prepare that environmental document.

(Reference: State CEQA Guidelines, § 15051.)

2.03 DUTIES OF A LEAD AGENCY.

As a Lead Agency, the District shall decide whether a Negative Declaration, Mitigated Negative Declaration or an EIR will be required for a project and shall prepare, or cause to be prepared, and consider the document before making its decision on whether and how to approve the project. The documents may be prepared by Staff or by private consultants pursuant to a

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contract with the District. However, the District shall independently review and analyze all draft and final EIRs or Negative Declarations prepared for a project and shall find that the EIR or Negative Declaration reflects the independent judgment of the District prior to approval of the document. If a Draft EIR or Final EIR is prepared under a contract with the District, the contract must be executed within forty-five (45) days from the date on which the District sends a Notice of Preparation. The District, however, may take longer to execute the contract if the project applicant and the District mutually agree to an extension of the 45-day time period. (Pub. Resources Code, § 21151.5; see also Local Guidelines Section 7.02.)

During the process of preparing an EIR, the District, as Lead Agency, shall have the following duties:

(a) If a California Native American tribe has requested consultation, within 14 days after determining that an application for a project is complete or a decision to undertake a project, the District shall begin consultation with the California Native American tribes (see Local Guidelines Section 7.07);

(b) Immediately after deciding that an EIR is required for a project, the District shall send to the Office of Land Use and Climate Innovation and each Responsible Agency a Notice of Preparation (Form "G") stating that an EIR will be prepared (see Local Guidelines Section 7.03);

(c) Prior to release of an EIR, if the California Native American tribe that is culturally affiliated with the geographic area of a project requests in writing to be informed of any proposed project, the District shall begin consultation with the tribe consistent with California law and Local Guidelines Section 7.07;

(d) The District shall prepare or cause to be prepared the Draft EIR for the project (see Local Guidelines Sections 7.06 and 7.18);

(e) Once the Draft EIR is completed, the District shall file a Notice of Completion (Form "H") with the Office of Land Use and Climate Innovation (see Local Guidelines Section 7.25);

(f) The District shall consult with state, federal and local agencies that exercise authority over resources that may be affected by the project for their comments on the completed Draft EIR (see, e.g., Local Guidelines Sections 5.02, 5.16, Section 7.26);

(g) The District shall provide public notice of the availability of a Draft EIR (Form "K") at the same time that it sends a Notice of Completion to the Office of Land Use and Climate Innovation (see Local Guidelines Section 7.25);

(h) The District shall evaluate comments on environmental issues received from persons who reviewed the Draft EIR and shall prepare or cause to be prepared a written response to all comments that raise significant environmental issues and that were timely received during the public comment period. A written response must be provided to all public agencies who commented on the project during the public review period at least ten (10) days prior to certifying an EIR (see Local Guidelines Section 7.30);

(i) The District shall prepare or cause to be prepared a Final EIR before approving the project (see Local Guidelines Section 7.31);

(j) The District shall certify that the Final EIR has been completed in compliance with CEQA and has been reviewed by the Board of Directors (see Local Guidelines Section 7.33); and

(k) The District shall include in the Final EIR any comments received from a Responsible Agency on the Notice of Preparation or the Draft EIR (see Local Guidelines Sections 2.08, 7.30 and 7.31).

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2.04 CEQA DETERMINATIONS MADE BY NON-ELECTED BODY; PROCEDURE TO APPEAL SUCH DETERMINATIONS.

As Lead Agency, the District may charge a non-elected decisionmaking body with the responsibility of making a finding of exemption or adopting, certifying or authorizing environmental documents. Any such determination, however, shall be subject to the District's procedures allowing for the appeal of the CEQA determination of any non-elected body to the District's Board of Directors. In the absence of a procedure governing such appeal, any CEQA determination made by a non-elected decisionmaker shall be appealable to the District's Board of Directors within ten (10) days of the non-elected decisionmaker's determination. If the non-elected decisionmaker's CEQA determination is not timely appealed as set forth herein, the non-elected decisionmaker's determination shall be final.

In the event the District's Board of Directors has delegated authority to a subsidiary board or official to approve a project, the Board of Directors also hereby delegates to that subsidiary board or official the authority to make all necessary CEQA determinations, including whether an EIR, Negative Declaration, Mitigated Negative Declaration or exemption shall be required for any project. A subsidiary board or official's CEQA determination shall be subject to appeal as set forth above.

(Reference: State CEQA Guidelines, §§ 15061(e), 15074(f), 15090(b).)

2.05 PROJECTS RELATING TO DEVELOPMENT OF HAZARDOUS WASTE AND OTHER SITES.

An applicant for a development project must submit a signed statement to the District, as Lead Agency, stating whether the project and any alternatives are located on a site that is included in any list compiled by the Secretary for Environmental Protection of the California Environmental Protection Agency ("California EPA") listing hazardous waste sites and other specified sites located in the District's boundaries. The applicant's statement must contain the following information:

(a) The applicant's name, address, and phone number;
(b) Address of site, and local agency (city/county);
(c) Assessor's book, page, and parcel number; and
(d) The list which includes the site, identification number, and date of list.

Before accepting as complete an application for any development project as defined in Local Guidelines Section 11.16, the District, as Lead Agency, shall consult lists compiled by the Secretary for Environmental Protection of the California EPA pursuant to Government Code section 65962.5 listing hazardous waste sites and other specified sites located in the District's boundaries. When acting as Lead Agency, the District shall notify an applicant for a development project if the project site is located on such a list and not already identified. In the Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (see Local Guidelines Section 6.04) or the Notice of Preparation of Draft EIR (see Local Guidelines Section 7.03), the District shall specify the California EPA list, if any, that includes the project site, and shall provide the information contained in the applicant's statement.

(Reference: Gov. Code, § 65962.5.)

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2.06 RESPONSIBLE AGENCY PRINCIPLE.

When a project is to be carried out or approved by more than one public agency, all public agencies other than the Lead Agency that have discretionary approval power over the project shall be identified as Responsible Agencies.

(Reference: State CEQA Guidelines, § 15381.)

2.07 DUTIES OF A RESPONSIBLE AGENCY.

When it is identified as a Responsible Agency, the District shall consider the environmental documents prepared or caused to be prepared by the Lead Agency and reach its own conclusions on whether and how to approve the project involved. The District shall also both respond to consultation and attend meetings as requested by the Lead Agency to assist the Lead Agency in preparing adequate environmental documents. The District should also review and comment on Draft EIRs, Negative Declarations, and Mitigated Negative Declarations. Comments shall be limited to those project activities that are within the District's area of expertise or are required to be carried out or approved by the District or are subject to the District's powers.

As a Responsible Agency, the District may identify significant environmental effects of a project for which mitigation is necessary. As a Responsible Agency, the District may submit to the Lead Agency proposed mitigation measures that would address those significant environmental effects. If mitigation measures are required, the District should submit to the Lead Agency complete and detailed performance objectives for such mitigation measures that would address the significant environmental effects identified, or refer the Lead Agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to the Lead Agency by the District, when acting as a Responsible Agency, shall be limited to measures that mitigate impacts to resources that are within the District's authority. For private projects, the District, as a Responsible Agency, may require the project proponent to provide such information as may be required and to reimburse the District for all costs incurred by it in reporting to the Lead Agency.

(Reference: State CEQA Guidelines, § 15096.)

2.08 RESPONSE TO NOTICE OF PREPARATION BY RESPONSIBLE AGENCIES.

Within thirty (30) days of receipt of a Notice of Preparation of an EIR, the District, as a Responsible Agency, shall specify to the Lead Agency the scope and content of the environmental information related to the District's area of statutory responsibility in connection with the proposed project. At a minimum, the response shall identify the significant environmental issues and possible alternatives and mitigation that the District, as a Responsible Agency, will need to have explored in the Draft EIR. Such information shall be specified in writing, shall be as specific as possible, and shall be communicated to the Lead Agency, by certified mail, email, or any other method of transmittal that provides it with a record that the response was received. The Lead Agency shall incorporate this information into the EIR.

(Reference: Pub. Resources Code, § 21080.4; State CEQA Guidelines, § 15103.)

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2.09 USE OF FINAL EIR OR NEGATIVE DECLARATION BY RESPONSIBLE AGENCIES.

The District, as a Responsible Agency, shall consider the Lead Agency's Final EIR or Negative Declaration before acting upon or approving a proposed project. As a Responsible Agency, the District must independently review and consider the adequacy of the Lead Agency's environmental documents prior to approving any portion of the proposed project. In certain instances, the District, in its role as a Responsible Agency, may require that a Subsequent EIR or a Supplemental EIR be prepared to fully address those aspects of the project over which the District has approval authority. Mitigation measures and alternatives deemed feasible and relevant to the District's role in carrying out the project shall be adopted. Findings that are relevant to the District's role as a Responsible Agency shall be made. After the District decides to approve or carry out part of a project for which an EIR or negative declaration has previously been prepared by the Lead Agency, the District, as Responsible Agency, should file a Notice of Determination with the County Clerk within five (5) days of approval, but need not state that the Lead Agency's EIR or Negative Declaration complies with CEQA. The District, as Responsible Agency, should state that it considered the EIR or Negative Declaration as prepared by a Lead Agency.

(Reference: State CEQA Guidelines, § 15096.)

2.10 SHIFT IN LEAD AGENCY RESPONSIBILITIES.

The District, as a Responsible Agency, shall assume the role of the Lead Agency if any one of the following three conditions is met:

(a) The Lead Agency did not prepare any environmental documents for the project, and the statute of limitations has expired for a challenge to the action of the appropriate Lead Agency;

(b) The Lead Agency prepared environmental documents for the project, and all of the following conditions apply:

  (1) A Subsequent or Supplemental EIR is required;

  (2) The Lead Agency has granted a final approval for the project; and

  (3) The statute of limitations has expired for a challenge to the action of the appropriate Lead Agency; or

(c) The Lead Agency prepared inadequate environmental documents without providing public notice of a Negative Declaration or sending Notice of Preparation of an EIR to Responsible Agencies and the statute of limitations has expired for a challenge to the action of the appropriate Lead Agency.

(Reference: State CEQA Guidelines, § 15052.)

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3. ACTIVITIES EXEMPT FROM CEQA

3.01 ACTIONS SUBJECT TO CEQA.

CEQA applies to discretionary projects proposed to be carried out or approved by public agencies such as the District. If the proposed activity does not come within the definition of "project" contained in Local Guidelines Section 11.59, it is not subject to environmental review under CEQA.

The term "project," as defined by CEQA, does not include:

(a) Proposals for legislation to be enacted by the State Legislature;
(b) Continuing administrative or maintenance activities, such as purchases for supplies, personnel-related actions, and general policy and procedure making (except as provided in Local Guidelines Section 11.59;
(c) The submittal of proposals to a vote of the people in response to a petition drive initiated by voters, or the enactment of a qualified voter-sponsored initiative under California Constitution Art. II, Section 11(a) and Election Code section 9214;
(d) The creation of government funding mechanisms or other government fiscal activities that do not involve any commitment to any specific project that may have a potentially significant physical impact on the environment. Government funding mechanisms may include, but are not limited to, assessment districts and community facilities districts;
(e) Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment; and
(f) Activities that do not result in a direct or reasonably foreseeable indirect physical change in the environment.

(Reference: State CEQA Guidelines, §§ 15060(c), 15378.)

3.02 MINISTERIAL ACTIONS.

Ministerial actions are not subject to CEQA review. A ministerial action is one that is approved or denied by a decision that a public official or a public agency makes that involves only the use of fixed standards or objective measurements without personal judgment or discretion.

When a project involves an approval that contains elements of both a ministerial and discretionary nature, the project will be deemed to be discretionary and subject to the requirements of CEQA. The decision whether the approval of a proposed project or activity is ministerial in nature may involve or require, to some extent, interpretation of the language of the legal mandate, and should be made on a case-by-case basis. The following is a non-exclusive list of examples of ministerial activities:

(a) Issuance of business licenses;
(b) Approval of final subdivision maps and final parcel maps;
(c) Approval of individual utility service connections and disconnections;
(d) Issuance of licenses;
(e) Issuance of a permit to do street work;

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(f) Issuance of building permits where the Lead Agency does not retain significant discretionary power to modify or shape the project; and

(g) Until January 1, 2024, approval of an application to install an emergency standby generator to serve a macro cell tower where conditions set forth in Government Code section 65850.75 are met.

(Reference: State CEQA Guidelines, § 15268.)

3.03 EXEMPTIONS IN GENERAL.

CEQA and the State CEQA Guidelines exempt certain activities and provide that local agencies should further identify and describe certain exemptions. The requirements of CEQA and the obligation to prepare an EIR, Negative Declaration, or Mitigated Negative Declaration generally do not apply to the exempt activities that are set forth in CEQA, the State CEQA Guidelines, and Chapter 3 of these Local Guidelines.

(Reference: State CEQA Guidelines, §§ 15260 – 15332.)

3.04 NOTICE OF EXEMPTION.

After approval of an exempt project, a "Notice of Exemption" (Form "A") may be filed by the District or its representatives with the County Clerk of each county in which the activity will be located. The Notice of Exemption must be filed electronically with the County Clerk if that option is offered by the County Clerk. When the Lead Agency files a Notice of Exemption with the County Clerk, it must also file the Notice of Exemption with the State Clearinghouse via the Office of Land Use and Climate Innovation's CEQASubmit portal at https://ceqasubmit.lci.ca.gov/. After filing, the District must additionally post the Notice of Exemption on the District's website, if any. The District is generally not required to file a Notice of Exemption after approving a project that it finds exempt from CEQA, though there are circumstances where a Notice of Exemption must be filed. Please see Local Guidelines Section 3.12 for certain circumstances in which the Lead Agency is required to file a Notice of Exemption.

The filing of a Notice of Exemption, when appropriate, is recommended for District actions because it shortens the statute of limitations to challenge the District's exemption determination under CEQA from 180 days to 35 days. The County Clerk must post a Notice of Exemption within twenty-four (24) hours of receipt, and the Notice must remain posted for thirty (30) days. The 30-day posting requirement excludes the first day of posting and includes the last day of posting. On the 30th day, the Notice of Exemption must be posted for the entire day. Although no California Department of Fish and Wildlife ("DFW") filing fee is applicable to exempt projects, most counties customarily charge a documentary handling fee to pay for record keeping on behalf of the DFW. Refer to the Index in the County Clerk Memo to determine if such a fee will be required for the project.

The Notice of Exemption must, among other things, identify the person undertaking the project, including any person undertaking an activity that receives financial assistance from the District as part of the project or the person receiving a lease, permit, license, certificate, or other entitlement for use from the District as part of the project. Certain counties require the name and address of an applicant to be included in the "Project Applicant" box of the Notice of Exemption,

even when the only project proponent is the District; in these counties, if the District is the only project proponent, the District's name and address should be provided in the "Project Applicant" box of the Notice of Exemption. Check the county's requirements before submitting the Notice of Exemption for filing and posting.

The Notice of Exemption may be filed by the project applicant, rather than the Lead Agency, in certain circumstances. Specifically, the Lead Agency may direct the project applicant to file the Notice of Exemption where the activity that the Lead Agency has determined is exempt from CEQA either:

(a) is undertaken by a *person* (not a public agency) and is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies; or

(b) involves the issuance to a *person* (not a public agency) of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

(See Pub. Resources Code, §§ 21065, (b), (c), 21152). Where the Notice of Exemption is filed by a project applicant rather than the Lead Agency, the applicant must attach a Certificate of Determination to the Notice of Exemption to be filed. The Certificate of Determination may be in the form of a certified copy of an existing document or record of the Lead Agency. Alternatively, the Lead Agency may prepare a Certificate of Determination (see Form "B") stating that the activity is exempt from CEQA, and the Lead Agency may provide the Certificate of Determination to the applicant. The applicant must attach the Certificate of Determination to the Notice of Exemption to be filed.

(Reference: Pub. Resources Code, § 21152; State CEQA Guidelines, § 15062.)

3.05 DISAPPROVED PROJECTS.

CEQA does not apply to projects that the Lead Agency rejects or disapproves. Even if a project for which an EIR, Negative Declaration, or Mitigated Negative Declaration has been prepared is ultimately disapproved, the project applicant shall not be relieved of its obligation to pay the costs incurred to prepare the EIR, Negative Declaration, or Mitigated Negative Declaration for the project.

(Reference: State CEQA Guidelines, §§ 15061(b)(4), 15270.)

3.06 PROJECTS WITH NO POSSIBILITY OF SIGNIFICANT EFFECT.

Where it can be seen with absolute certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is exempt from CEQA.

(Reference: State CEQA Guidelines, § 15061(b)(3).)

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3.07 EMERGENCY PROJECTS.

The following types of emergency projects are exempt from CEQA (the term "emergency" is defined in Local Guidelines Section 11.20):

(a) Work in a disaster-stricken area in which a state of emergency has been proclaimed by the Governor pursuant to Section 8550 of the Government Code. This includes projects that will remove, destroy, or significantly alter a historical resource when that resource represents an imminent threat to the public of bodily harm or of damage to adjacent property or when the project has received a determination by the State Office of Historic Preservation pursuant to Section 5028(b) of the Public Resources Code.

(b) Emergency repairs to publicly or privately owned service facilities necessary to maintain service essential to the public health, safety, or welfare. Emergency repairs include those that require a reasonable amount of planning to address an anticipated emergency.

(c) Projects necessary to prevent or mitigate an emergency. This does not include long-term projects undertaken for the purpose of preventing or mitigating a situation that has a low probability of occurrence in the short-term, but this exclusion does not apply (i) if the anticipated period of time to conduct an environmental review of such a long-term project would create a risk to public health, safety, or welfare, or (ii) if activities (such as fire or catastrophic risk mitigation or modifications to improve facility integrity) are proposed for existing facilities in response to an emergency at a similar existing facility.

(d) Projects undertaken, carried out, or approved by a public agency to maintain, repair, or restore an existing highway damaged by fire, flood, storm, earthquake, land subsidence, gradual earth movement, or landslide, provided that the project is within the existing right of way of that highway and is initiated within one year of the damage occurring. Highway shall have the same meaning as defined in Section 360 of the Vehicle Code. This exemption does not apply to highways designated as official state scenic highways, nor to any project undertaken, carried out, or approved by a public agency to expand or widen a highway damaged by fire, flood, storm, earthquake, land subsidence, gradual earth movement, or landslide.

(e) Seismic work on highways and bridges pursuant to Streets and Highways Code section 180.2.

(Reference: State CEQA Guidelines, § 15269.)

3.08 FEASIBILITY AND PLANNING STUDIES.

A project that involves only feasibility or planning studies for possible future actions which the District has not yet approved, adopted, or funded is exempt from CEQA.

(Reference: State CEQA Guidelines, § 15262.)

3.09 RATES, TOLLS, FARES, AND CHARGES.

The establishment, modification, structuring, restructuring, or approval of rates, tolls, fares, or other charges by the District that the District finds are for one or more of the purposes listed below are exempt from CEQA.

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(a) Meeting operating expenses, including employee wage rates and fringe benefits;
(b) Purchasing or leasing supplies, equipment or materials;
(c) Meeting financial reserve needs and requirements; or
(d) Obtaining funds for capital projects necessary to maintain service within existing service areas.

When the District determines that one of the aforementioned activities pertaining to rates, tolls, fares, or charges is exempt from the requirements of CEQA, it shall incorporate written findings setting forth the specific basis for the claim of exemption in the record of any proceeding in which such an exemption is claimed.

(Reference: State CEQA Guidelines, § 15273.)

3.10 PIPELINES WITHIN A PUBLIC RIGHT-OF-WAY AND LESS THAN ONE MILE IN LENGTH.

Projects that are for the installation of a new pipeline or the maintenance, repair, restoration, reconditioning, relocation, replacement, removal, or demolition of an existing pipeline and that are:

(a) in a public street or highway or any other public right-of-way; and
(b) less than one mile in length

shall be exempt from CEQA requirements.

"Pipeline" includes subsurface facilities but does not include any surface facility related to the operation of the underground facility.

(Reference: Public Resources Code, § 21080.21.)

3.11 PIPELINES OF LESS THAN EIGHT MILES IN LENGTH.

Projects that are for the inspection, maintenance, repair, restoration, reconditioning, relocation, replacement, or removal of an existing pipeline, or any valve, flange, meter, or other piece of equipment that is directly attached to the pipeline shall be exempt from CEQA requirements if all of the following conditions are met:

(a) The project is less than eight miles in length.
(b) Notwithstanding the project length, actual construction and excavation activities undertaken to achieve the maintenance, repair, restoration, reconditioning, relocation, replacement, or removal of an existing pipeline are not undertaken over a length of more than one-half mile at any one time.
(c) The project consists of a section of pipeline that is not less than eight miles from any section of pipeline that has been subject to an exemption pursuant to CEQA in the past 12 months.
(d) The project is not solely for the purpose of excavating soil that is contaminated by hazardous materials, and, to the extent not otherwise expressly required by law, the party undertaking the project immediately informs the lead agency of the discovery of contaminated soil.

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(e) To the extent not otherwise expressly required by law, the person undertaking the project has, in advance of undertaking the project, prepared a plan that will result in notification of the appropriate agencies so that they may take action, if determined to be necessary, to provide for the emergency evacuation of members of the public who may be located in close proximity to the project.

(f) Project activities are undertaken within an existing right-of-way and the right-of-way is restored to its condition prior to the project.

(g) The project applicant agrees to comply with all conditions otherwise authorized by law, imposed by the city or county planning department as part of any local agency permit process, that are required to mitigate potential impacts of the proposed project, and to otherwise comply with the Keene-Nejedly California Wetlands Preservation Act (Chapter 7 (commencing with Section 5810) of Division 5), the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code), and other applicable state laws, and with all applicable federal laws.

If a project meets all of the requirements for this exemption, the person undertaking the project shall do all of the following:

(a) Notify, in writing, any affected public agency, including, but not limited to, any public agency having permit, land use, environmental, public health protection, or emergency response authority of this exemption.

(b) Provide notice to the public in the affected area in a manner consistent with paragraph (3) of Public Resources Code section 21092(b).

(c) In the case of private rights-of-way over private property, receive from the underlying property owner permission for access to the property.

(d) Comply with all conditions otherwise authorized by law, imposed by the city or county planning department as part of any local agency permit process, that are required to mitigate potential impacts of the proposed project, and otherwise comply with the Keene-Nejedly California Wetlands Preservation Act (Chapter 7 (commencing with Section 5810) of Division 5), the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code), and other applicable state laws, and with all applicable federal laws.

This exemption does not apply to a project in which the diameter of the pipeline is increased or to a project undertaken within the boundaries of an oil refinery.

For purposes of this exemption, the following definitions apply:

(a) "Pipeline" includes every intrastate pipeline used for the transportation of hazardous liquid substances or highly volatile liquid substances, including a common carrier pipeline, and all piping containing those substances located within a refined products bulk loading facility which is owned by a common carrier and is served by a pipeline of that common carrier, and the common carrier owns and serves by pipeline at least five such facilities in the state. "Pipeline" does not include the following:

    (1) An interstate pipeline subject to Part 195 of Title 49 of the Code of Federal Regulations.

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(2) A pipeline for the transportation of a hazardous liquid substance in a gaseous state.
(3) A pipeline for the transportation of crude oil that operates by gravity or at a stress level of 20 percent or less of the specified minimum yield strength of the pipe.
(4) Transportation of petroleum in onshore gathering lines located in rural areas.
(5) A pipeline for the transportation of a hazardous liquid substance offshore located upstream from the outlet flange of each facility on the Outer Continental Shelf where hydrocarbons are produced or where produced hydrocarbons are first separated, dehydrated, or otherwise processed, whichever facility is farther downstream.
(6) Transportation of a hazardous liquid by a flow line.
(7) A pipeline for the transportation of a hazardous liquid substance through an onshore production, refining, or manufacturing facility, including a storage or in plant piping system associated with that facility.
(8) Transportation of a hazardous liquid substance by vessel, aircraft, tank truck, tank car, or other vehicle or terminal facilities used exclusively to transfer hazardous liquids between those modes of transportation.

(Reference: State CEQA Guidelines, § 15284.)

3.12 CERTAIN RESIDENTIAL HOUSING PROJECTS.

CEQA does not apply to the construction, conversion, or use of residential housing if the project meets all of the general requirements described in Section A below and satisfies the specific requirements for any one of the following three categories: (1) agricultural housing (Section B below), (2) affordable housing projects in urbanized areas (Section C below), or (3) affordable housing projects near major transit stops (Section D below).

A. General Requirements. The construction, conversion, or use of residential housing units affordable to low-income households (as defined in Local Guidelines Section 11.36) located on an infill site in an urbanized area is exempt from CEQA if all of the following general requirements are satisfied:

(1) The project is consistent with:

(a) Any applicable general plan, specific plan, or local coastal program, including any mitigation measures required by such plan or program, as that plan or program existed on the date that the application was deemed complete; and
(b) Any applicable zoning ordinance, as that zoning ordinance existed on the date that the application was deemed complete. However, the project may be inconsistent with zoning if the zoning is inconsistent with the general plan and the project site has not been rezoned to conform to the general plan;

(2) Community level environmental review has been adopted or certified;

(3) The project and other projects approved prior to the approval of the project can be adequately served by existing utilities, and the project applicant has paid, or has committed to pay, all applicable in-lieu or development fees;

(4) The project site meets all of the following four criteria relating to biological resources:

(a) The project site does not contain wetlands;
(b) The project site does not have any value as a wildlife habitat;
(c) The project does not harm any species protected by the federal Endangered Species Act of 1973, the Native Plant Protection Act, or the California Endangered Species Act; and
(d) The project does not cause the destruction or removal of any species protected by a local ordinance in effect at the time the application for the project was deemed complete;

(5) The site is not included on any list of facilities and sites compiled pursuant to Government Code section 65962.5;

(6) The project site is subject to a preliminary endangerment assessment prepared by a registered environmental assessor to determine the existence of any release of a hazardous substance on the site and to determine the potential for exposure of future occupants to significant health hazards from any nearby property or activity. In addition, the following steps must have been taken in response to the results of this assessment:

(a) If a release of a hazardous substance is found to exist on the site, the release shall be removed or any significant effects of the release shall be mitigated to a level of insignificance in compliance with state and federal requirements; or
(b) If a potential for exposure to significant hazards from surrounding properties or activities is found to exist, the effects of the potential exposure shall be mitigated to a level of insignificance in compliance with state and federal requirements;

(7) The project does not have a significant effect on historical resources pursuant to Section 21084.1 of the Public Resources Code (see Local Guidelines Section 11.28);

(8) The project site is not subject to wildland fire hazard, as determined by the Department of Forestry and Fire Protection; unless the applicable general plan or zoning ordinance contains provisions to mitigate the risk of a wildland fire hazard;

(9) The project site does not have an unusually high risk of fire or explosion from materials stored or used on nearby properties;

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(10) The project site does not present a risk of a public health exposure at a level that would exceed the standards established by any state or federal agency;

(11) Either the project site is not within a delineated earthquake fault zone, or a seismic hazard zone, as determined pursuant to Section 2622 and 2696 of the Public Resources Code respectively, or the applicable general plan or zoning ordinance contains provisions to mitigate the risk of an earthquake or seismic hazard;

(12) Either the project site does not present a landslide hazard, flood plain, flood way, or restriction zone, or the applicable general plan or zoning ordinance contains provisions to mitigate the risk of a landslide or flood;

(13) The project site is not located on developed open space;

(14) The project site is not located within the boundaries of a state conservancy;

(15) The project site has not been divided into smaller projects to qualify for one or more of the exemptions for affordable housing, agricultural housing, or residential infill housing projects found in the subsequent sections; and

(16) The project meets the requirements set forth in either Public Resources Code sections 21159.22, 21159.23 or 21159.24.

(Reference: State CEQA Guidelines, § 15192.)

B. Specific Requirements for Agricultural Housing. CEQA does not apply to the construction, conversion, or use of residential housing for agricultural employees that meets either of the following:

(1) The project meets all of the general requirements described above in Section A and meets the following additional criteria:

(a) The project either:

1. Is affordable to lower income households, lacks public financial assistance, and the developer has provided sufficient legal commitments to ensure the continued availability and use of the housing units for lower income households for a period of at least fifteen (15) years; or

2. If public financial assistance exists for the project, then the project must be housing for very low-, low-, or moderate-income households and the developer of the project has provided sufficient legal commitments to the appropriate local agency to ensure the continued availability and use of

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the housing units for low- and moderate-income households for a period of at least fifteen (15) years;

(b) The project site is adjacent on at least two sides to land that has been developed and the project consists of not more than forty-five (45) units or provides dormitories, barracks, or other group-living facilities for a total of forty-five (45) or fewer agricultural employees, and either:

1. The project site is within incorporated city limits or within a census-defined place with a minimum population density of at least five thousand (5,000) persons per square mile; or

2. The project site is within incorporated city limits or within a census-defined place and the minimum population density of the census-defined place is at least one thousand (1,000) persons per square mile, unless the Lead Agency determines that there is a reasonable possibility that the project, if completed, would have a significant effect on the environment due to unusual circumstances or that the cumulative effects of successive projects of the same type in the same area would, over time, be significant;

(c) If the project is located on a site zoned for general agricultural use, it must consist of twenty (20) or fewer units, or, if the housing consists of dormitories, barracks, or other group-living facilities, the project must not provide housing for more than twenty (20) agricultural employees; and

(d) The project is not more than two (2) acres in area if the project site is located in an area with a population density of at least one thousand (1,000) persons per square mile, and is not more than five (5) acres in area for all other project sites.

(2) If the project does not meet the general requirements described above in Section A, but still meets the criteria described above in Section B(1) in accordance with Public Resources Code section 21159.22, and the following:

(a) Project is an agricultural housing development that satisfies all of the following:

1. Agricultural employee housing does not contain dormitory-style housing;

2. Development consists of no more than either (i) thirty-six units or spaces designed for use by a single family or household, or (ii) one hundred fifty units or spaces designed

for use by a single family or household if development is located in Counties of Fresno, Madera, Merced, Santa Clara, or Santa Cruz;

3. Housing must be maintained and operated by a qualified affordable housing organization that has been certified pursuant to Health and Safety Code section 17030.10, and provide for onsite management of development; and development proponent shall submit proof of issuance of qualified affordable housing organization's certification by enforcement agency; or if the housing is maintained and operated by local public housing agency or multicounty, state, or multistate agency that has been certified as qualified affordable housing organization, that agency either directly maintains and operates the housing or contracts with another qualified housing organization, and the local government must ensure an affordability covenant is recorded on the property for not less than 55 years, and the housing is not eligible for state funding pursuant to Public Resources Code sections 50205(b)(1) or 50517.10(b)(1); and

4. Funded by either: (i) the Joe Serna, Jr. Farmworker Housing Grant Program; (ii) the Office of Migrant Services with the Department of Housing and Community Development; (iii) local government; or (iv) owned or operated and funded by a public or nonprofit entity, or that receives state, federal, or local public funding.

(3) Project consists exclusively of the repair or maintenance of an existing farmworker housing project.

(Reference: Pub. Resources Code, §§ 21084, 21080.44, 21159.22; State CEQA Guidelines, §§ 15192, 15193.)

C. Specific Requirements for Affordable Housing Projects in Urbanized Areas. CEQA does not apply to any development project that consists of the construction, conversion, or use of residential housing consisting of one hundred (100) or fewer units that are affordable to low-income households if all of the general requirements described in Section A above are satisfied and the following additional criteria are also met:

(1) The developer of the project provides sufficient legal commitments to the local agency to ensure the continued availability and use of the housing units for lower income households for a period of at least thirty (30) years, at monthly housing costs deemed to be "affordable rent" for lower income, very low income, and extremely low income households, as determined pursuant to Section 50053 of the Health and Safety Code;

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(2) The project site meets one of the following conditions:

(a) Has been previously developed for qualified urban uses;
(b) Is immediately adjacent to parcels that are developed with qualified urban uses; or
(c) At least 75% of the perimeter of the site adjoins parcels that are developed with qualified urban uses and the remaining 25% of the perimeter of the site adjoins parcels that have previously been developed for qualified urban uses, the site has not been developed for urban uses and no parcel within the site has been created within ten (10) years prior to the proposed development of the site;

(3) The project site is not more than five (5) acres in area; and

(4) The project site meets one of the following requirements regarding population density:

(a) The project site is within an urbanized area or within a census-defined place with a population density of at least five thousand (5,000) persons per square mile;
(b) If the project consists of fifty (50) or fewer units, the project site is within an incorporated city with a population density of at least twenty-five hundred (2,500) persons per square mile and a total population of at least twenty-five thousand (25,000) persons; or
(c) The project site is within either an incorporated city or a census-defined place with a population density of one thousand (1,000) persons per square mile, unless there is a reasonable possibility that the project would have a significant effect on the environment due to unusual circumstances or due to the related or cumulative impacts of reasonably foreseeable projects in the vicinity of the project.

(Reference: Pub. Resources Code, §§ 21083, 21159.23; State CEQA Guidelines, § 15194.)

D. Specific Requirements for Affordable Housing Projects Near Major Transit Stops.

(a) Except as provided in subdivision (b), CEQA does not apply to a project if all of the following criteria are met:

1. The project is a residential project on an infill site.

2. The project is located within an urbanized area.

3. The project satisfies the criteria of Public Resources Code section 21159.21, described in Section A above.

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4. Within five years of the date that the application for the project is deemed complete pursuant to Section 65943 of the Government Code, community-level environmental review was certified or adopted.

5. The site of the project is not more than four acres in total area.

6. The project does not contain more than 100 residential units.

7. Either of the following criteria (subdivision a or subdivision b) are met:

   a. (1) At least 10 percent of the housing is sold to families of moderate income, or not less than 10 percent of the housing is rented to families of low income, or not less than 5 percent of the housing is rented to families of very low income; and

      (2) The project developer provides sufficient legal commitments to the appropriate local agency to ensure the continued availability and use of the housing units for very low-, low-, and moderate-income households at monthly housing costs determined pursuant to paragraph (3) of the subdivision (h) of Section 65589.5 of the Government Code.

   b. The project developer has paid or will pay in-lieu fees pursuant to a local ordinance in an amount sufficient to result in the development of an equivalent number of units that would otherwise be required pursuant to subparagraph 7.a above.

8. The project is within one-half mile of a major transit stop.

9. The project does not include any single level building that exceeds 100,000 square feet.

10. The project promotes higher density infill housing. A project with a density of at least 20 units per acre shall be conclusively presumed to promote higher density infill housing. A project with a density of at least 10 units per acre and a density greater than the average density of the residential properties within 1,500 feet shall be presumed to promote higher density housing unless the preponderance of the evidence demonstrates otherwise.

(b) Notwithstanding subdivision (a) above, the Exemption for Affordable Housing Projects near Major Transit Stops does not apply if any one of the following criteria is met:

1. There is a reasonable possibility that the project-specific, significant effect on the environment due to unusual circumstances;

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2. Substantial changes have occurred since community-level environmental review was adopted or certified with respect to the circumstances under which the project is being undertaken, and those changes are related to the project; or
3. New information regarding the circumstances under which the project is being undertaken has become available, and that new information is related to the project and was not known and could not have been known at the time of the community-level environmental review.

(c) If a project satisfies the criteria described above in Section 3.12D(a), but is not exempt from CEQA as a result of satisfying the criteria described in Section 3.12D(b), the analysis of the environmental effects of the project in the EIR or the negative declaration for the project shall be limited to an analysis of the project-specific effects of the project and any effects identified pursuant to Paragraph 2 or 3 of Section 3.12D(b), above.

(Reference: Pub. Resources Code, §§ 21083, 21159.24; State CEQA Guidelines, § 15195.)

E. Whenever the Lead Agency determines that a project is exempt from environmental review based on Public Resources Code sections 21159.22 [Section 3.12B of these Local Guidelines], 21159.23 [Section 3.12C of these Local Guidelines], or 21159.24 [Section 3.12D of these Local Guidelines], Staff and/or the proponent of the project shall file a Notice of Exemption with the Office of Land Use and Climate Innovation within five (5) working days after the approval of the project.

(Reference: State CEQA Guidelines, § 15196.)

3.13 MINOR ALTERATIONS TO FLUORIDATE WATER UTILITIES.

Minor alterations to water utilities made for the purpose of complying with the fluoridation requirements of Health and Safety Code sections 116410 and 116415 or regulations adopted thereunder are exempt from CEQA.

(Reference: State CEQA Guidelines, § 15282(m).)

3.14 BALLOT MEASURES.

The definition of project in the State CEQA Guidelines specifically excludes the submittal of proposals to a vote of the people of the state or of a particular community. This exemption does not apply to the public agency that sponsors the initiative. When a governing body makes a decision to put a measure on the ballot, that decision may be discretionary and therefore subject to CEQA. In contrast, the enactment of a qualified voter-sponsored initiative under California Constitution Art. II, Section 11(a) and Election Code section 9214 is not a project and therefore is not subject to CEQA review.

(Reference: Local Guidelines Section 3.01; State CEQA Guidelines, § 15378(b)(3).)

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3.15 TRANSIT PRIORITY PROJECT.

Exemption: Transit Priority Projects (see Local Guidelines Section 11.77) that are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a Sustainable Community Strategy or an alternative planning strategy may be exempt from CEQA. To qualify for the exemption, the decision-making body must hold a hearing and make findings that the project meets all of Public Resources Code section 21155.1's environmental, housing, and public safety conditions and requirements.

Streamlined Review: A Transit Priority Project that has incorporated all feasible mitigation measures, performance standards or criteria set forth in a prior environmental impact report, may be eligible for streamlined environmental review. For a complete description of the requirements for this streamlined review see Public Resources Code section 21155.2. Similarly, the environmental review for a residential or mixed use residential project may limit, or entirely omit, its discussion of growth-inducing impacts or impacts from traffic on global warming under certain limited circumstances. Note, however, that impacts from other sources of greenhouse gas emissions would still need to be analyzed. For complete requirements see Public Resources Code section 21159.28.

Note that neither the exemption nor the streamlined review will apply until: (1) the applicable Metropolitan Planning Organization prepares and adopts a Sustainable Communities Strategy or alternative planning strategy for the region; and (2) the California Air Resources Board has accepted the Metropolitan Planning Organization's determination that the Sustainable Communities Strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets adopted for the region.

(Reference: Pub. Resources Code, §§ 21155.1, 21151.2, 21159.28.)

3.16 CERTAIN INFILL PROJECTS

(a) (1) If an environmental impact report was certified for a planning level decision of the city or county, the application of CEQA to the approval of an infill project shall be limited to the effects on the environment that (A) are specific to the project or to the project site and were not addressed as significant effects in the prior environmental impact report or (B) substantial new information shows the effects will be more significant than described in the prior environmental impact report. The attached Form "S" shall be used for this determination. A lead agency's determination pursuant to this section shall be supported by substantial evidence.

(2) An effect of a project upon the environment shall not be considered a specific effect of the project or a significant effect that was not considered significant in a prior environmental impact report, or an effect that is more significant than was described in the prior environmental impact report if uniformly applicable development policies or standards adopted by the city, county, or the lead agency, would apply to the project and the lead agency makes a finding, based upon substantial evidence, that the development policies or standards will substantially mitigate that effect.

(b) If an infill project would result in significant effects that are specific to the project or the project site, or if the significant effects of the infill project were not addressed in the prior

environmental impact report, or are more significant than the effects addressed in the prior environmental impact report, and if a mitigated negative declaration or a sustainable communities environmental assessment could not be otherwise adopted, an environmental impact report prepared for the project analyzing those effects shall be limited as follows:

(1) Alternative locations, densities, and building intensities to the project need not be considered.

(2) Growth inducing impacts of the project need not be considered.

(c) This section applies to an infill project that satisfies both of the following:

(1) The project satisfies any of the following:

A) Is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy for which the State Air Resources Board, pursuant to subparagraph (H) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code, has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets.

(B) Consists of a small walkable community project located in an area designated by a city for that purpose.

(C) Is located within the boundaries of a metropolitan planning organization that has not yet adopted a sustainable communities strategy or alternative planning strategy, and the project has a residential density of at least 20 units per acre or a floor area ratio of at least 0.75.

(2) Satisfies all applicable statewide performance standards contained in the guidelines adopted pursuant to Public Resources Code section 21094.5.5 (Form "R").

(d) This section applies after the Secretary of the Natural Resources Agency adopts and certifies the guidelines establishing statewide standards pursuant to Public Resources Code section 21094.5.5.

(e) For the purposes of this section, the following terms mean the following:

(1) "Infill project" means a project that meets the following conditions:

(A) Consists of any one, or combination, of the following uses:

(i) Residential.

(ii) Retail or commercial, where no more than one-half of the project area is used for parking.

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(iii) A transit station.

(iv) A school.

(v) A public office building.

(B) Is located within an urban area on a site that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

(2) "Planning level decision" means the enactment or amendment of a general plan, community plan, specific plan, or zoning code.

(3) "Prior environmental impact report" means the environmental impact report certified for a planning level decision, as supplemented by any subsequent or supplemental environmental impact reports, negative declarations, or addenda to those documents.

(4) "Small walkable community project" means a project that is in an incorporated city, which is not within the boundary of a metropolitan planning organization and that satisfies the following requirements:

(A) Has a project area of approximately one-quarter mile diameter of contiguous land completely within the existing incorporated boundaries of the city.

(B) Has a project area that includes a residential area adjacent to a retail downtown area.

(C) The project has a density of at least eight dwelling units per acre or a floor area ratio for retail or commercial use of not less than 0.50.

(5) "Urban area" includes either an incorporated city or an unincorporated area that is completely surrounded by one or more incorporated cities that meets both of the following criteria:

(A) The population of the unincorporated area and the population of the surrounding incorporated cities equal a population of 100,000 or more.

(B) The population density of the unincorporated area is equal to, or greater than, the population density of the surrounding cities.

(Reference: Pub. Resources Code, § 21094.5.)

3.17 EXEMPTION FOR RESIDENTIAL OR MIXED-USE HOUSING PROJECTS

CEQA does not apply to residential or mixed-used housing projects, located in unincorporated areas of a county, that meet the requirements set forth below. For purposes of this section, "residential or mixed-use housing project" means a project consisting of multifamily residential

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uses only or a mix of multifamily residential and nonresidential uses, with at least two-thirds of the square footage of the development designated for residential use.

This exemption shall apply to a residential or mixed-use housing project if all of the following conditions are met:

(1) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with the applicable zoning designation and regulations.

(2) (A)The public agency approving or carrying out the project determines, based upon substantial evidence, that the density of the residential portion of the project is not less than the greater of the following:

a. The average density of the residential properties that adjoin, or are separated only by an improved public right-of-way from, the perimeter of the project site, if any.

b. The average density of the residential properties within 1,500 feet of the project site.

c. Six dwelling units per acre.

(B) The residential portion of the project is a multifamily housing development that contains six or more residential units.

(3) The proposed development occurs within an unincorporated area of a county on a project site of no more than five acres substantially surrounded by qualified urban uses. "Substantially surrounded" means (1) at least 75 percent of the perimeter of the project site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses; and (2) the remainder of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that have been designated for qualified urban uses in a zoning, community plan, or general plan for which an environmental impact report was certified.

(4) The project site has no value as habitat for endangered, rare, or threatened species.

(5) Approval of the project would not result in any significant effects relating to transportation, noise, air quality, greenhouse gas emissions, or water quality.

(6) The site can be adequately served by all required utilities and public services.

(7) The project is located on a site that is a legal parcel or parcels wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.

The exemption does not apply to the project if any of the following conditions exist: (1) the cumulative impact of successive projects of the same type in the same place over time is significant; (2) there is a reasonable possibility that the project will have a significant effect on the

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environment due to unusual circumstances; (3) the project may result in damage to scenic resources, including, but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway; (4) the project is located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code; (5) the project may cause a substantial adverse change in the significance of a historical resource; or (6) the project may cause a substantial adverse impact to tribal cultural resources.

If the lead agency determines that a project is not subject to this division pursuant to this section and it determines to approve or carry out the project, the lead agency shall file a notice of exemption with the Office of Land Use and Climate Innovation and with the county clerk in the county in which the project will be located.

This section shall remain in effect only until January 1, 2032, and as of that date is repealed.

(Reference: Pub. Resources Code, § 21159.25.)

3.18 EXEMPTION FOR INFILL PROJECTS IN TRANSIT PRIORITY AREAS

A residential or mixed-use project, or a project with a floor area ratio of at least 0.75 on commercially-zoned property, including any required subdivision or zoning approvals, is exempt from CEQA if the project satisfies the following criteria:

- The project is located within a transit priority area as defined in Section 11.74 below;
- The project is consistent with an applicable specific plan for which an environmental impact report was certified; and
- The project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy for which the State Air Resources Board has accepted the determination that the sustainable communities strategy or the alternative planning strategy would achieve the applicable greenhouse gas emissions reduction targets.

Further environmental review shall be required for a project meeting the above criteria only if one of the events specified in Section 8.04 below occurs.

(Reference: State CEQA Guidelines, § 15182(b).)

3.19 EXEMPTION FOR RESIDENTIAL PROJECTS UNDERTAKEN PURSUANT TO A SPECIFIC PLAN

Where a public agency has prepared an EIR for a specific plan after January 1, 1980, a residential project undertaken pursuant to and in conformity with that specific plan is generally exempt from CEQA. Residential projects covered by this section include, but are not limited to, land subdivisions, zoning changes, and residential planned unit developments.

Further environmental review shall be required for a project meeting the above criteria only if, after the adoption of the specific plan, one of the events specified in Section 8.04 below occurs. In that circumstance, this exemption shall not apply until the city or county which adopted the specific plan completes a subsequent EIR or a supplement to an EIR on the specific plan. The exemption provided by this section shall again be available to residential projects after the Lead Agency has filed a Notice of Determination on the specific plan as reconsidered by the subsequent EIR or supplement to the EIR.

(Reference: State CEQA Guidelines, § 15182(c).)

3.20 EXEMPTION FOR CERTAIN HOUSING DEVELOPMENT PROJECTS THAT ARE 20 ACRES OR LESS IN SIZE

CEQA does not apply to a housing development project, including any permits, approvals, or public improvements required for the housing development project, if the housing development project meets all of the following conditions:

1) Is not more than 20 acres or, for a builder's remedy project, be no more than four acres;

2) Is located in an incorporated city or urban area, and either previously developed or surrounded by urban uses;

3) Is generally consistent with applicable general plan and zoning ordinances, as well as any applicable specific plan and local coastal program;

4) Meets minimum residential density requirements of five units per acre in unincorporated nonmetropolitan counties, 10 units per acre in suburban jurisdictions, or 15 units per acre in metropolitan jurisdictions;

5) Does not require demolition of a historic structure and avoid hazardous sites and sensitive lands (e.g., prime farmland, wetlands, etc.);

6) Does not include any transient lodging (e.g., hotel, motel, or bed and breakfast inn);

7) Within either (i) 14 days of the preliminary project application being deemed complete or if no preliminary application was submitted, then the project application being deemed complete, or (ii) for projects whose applications were deemed complete before July 1, 2026, within 14 days of notifying the lead agency the project is eligible for this exemption, the lead agency shall provide formal notification via certified mail and email to each California Native American tribe that is traditionally and culturally affiliated with the project site as an invitation to consult on the proposed project, its location, and the project's potential effects on tribal cultural resources;

8) Include any mitigation for tribal cultural resources as a result of consultation with any California Native American tribe traditionally and culturally affiliated with the project site;

9) Include a condition of approval requiring an environmental assessment for hazardous substance releases, with mitigation requirements based upon results;

10) Comply with specific environmental hazard and air filtration standards if within 500 feet of a freeway; and

11) Comply with labor requirements, including payment of prevailing wage for 100 perfect affordable projects and use of a skilled and trained workforce for buildings exceeding 85 feet in height.

(Reference: Pub. Resources Code, § 21080.66.)

3.21 TRANSFER OF LAND FOR THE PRESERVATION OF NATURAL CONDITIONS

CEQA does not apply to the acquisition, sale, or other transfer of interest in land by the District for the purpose of fulfilling any of the following purposes: (1) preservation of natural conditions existing at the time of transfer, including plant and animal habitats, (2) restoration of natural conditions, including plant and animal habitats, (3) continuing agricultural use of the land; (4) prevention of encroachment of development into flood plains; (5) preservation of historical resources; or (6) preservation of open space or lands for park purposes. CEQA similarly does not apply to the granting or acceptance of funding by the District for the foregoing purposes.

The foregoing applies even if physical changes to the environment or changes in the use of the land are a reasonably foreseeable consequence of the acquisition, sale, or other transfer of the interests in land, or of the granting or acceptance of funding, provided that environmental review otherwise required by CEQA occurs before any project approval that would authorize physical changes being made to that land.

The District must file a Notice of Exemption with the State Clearinghouse and the County Clerk should it find a project exempt under this provision.

(Reference: Pub. Resources Code, § 21080.28.)

3.22 TRANSIT PRIORITIZATION PROJECTS.

CEQA exempts the following projects when (i) the project is carried out by a local agency that is the lead agency for the project; (ii) the project does not induce single-occupancy vehicle trips, add additional highway lanes, widen highways, or add physical infrastructure or striping to highways except for minor modifications needed for efficient and safe movement of transit vehicles, bicycles, or high-occupancy vehicles, such as extended merging lanes, shoulder improvements, or improvements to the roadway within the existing right of way; (iii) the project does not include the addition of any auxiliary lanes; and (iv) the construction of the project shall not require the demolition of affordable housing units:

(1) Pedestrian and bicycle facilities—including bicycle parking, bicycle sharing facilities, and bikeways as defined in Section 890.4 of the Streets and Highways Code—that improve safety, access, or mobility, including new facilities, within the public right-of-way;

(2) Projects that improve customer information and wayfinding for transit riders, bicyclists, or pedestrians within the public right-of-way;

(3) Transit prioritization projects, which are defined to mean any of the following transit project types on highways or in the public right-of-way:

(a) Signal and sign changes, such as signal coordination, signal timing modifications, signal modifications, or the installation of traffic signs or new signals;

(b) The installation of wayside technology and onboard technology;

(c) The installation of ramp meters;

(d) The conversion to dedicated transit lanes, including transit queue jump or bypass lanes, shared turning lanes and turn restrictions, the narrowing of lanes to allow for dedicated transit lanes or transit reliability improvements, or the widening of existing transit travel lanes by removing or restricting street parking; and

(e) Transit stop access and safety improvements, including, but not limited to, the installation of transit bulbs and the installation of transit boarding islands.

(4) A project for the designation and conversion of general purpose lanes to high-occupancy vehicle lanes or bus-only lanes, or highway shoulders to part-time transit lanes, for use either during peak congestion hours or all day on highways with existing public transit service or where a public transit agency will be implementing public transit service as identified in a short range transit plan.

(5) A project for the protection, improvement, institution, or increase of microtransit, paratransit, shuttle, bus, ferry, bus rapid transit, or light rail service, including the protection, maintenance, construction, operation, or rehabilitation of stops, stations, terminals, or existing operations facilities, which will be exclusively used by zero-emission, near-zero-emission, low oxide of nitrogen engine, compressed natural gas fuel, fuel cell, or hybrid powertrain vehicles, rail or cable cars, rolling stock, or vessels. The project shall be located entirely within an existing public right-of-way or existing highway right-of-way, whether or not the right-of-way is in use for rail or public mass transit and is wholly within the boundaries of an urbanized area or urban cluster. Until January 1, 2032, a project for the protection, improvement, institution, or increase of certain transit services, including the protection, maintenance, construction, operation, or rehabilitation of stops, stations, terminals, or existing operations facilities, if used primarily by near-zero-emission and other alternative fuels.

(6) A project for the institution or increase of bus rapid transit, bus, or light rail service, including the construction or rehabilitation of stations, terminals, or existing operations facilities, which will be exclusively used by zero-emission, near-zero

emission, low oxide of nitrogen engine, compressed natural gas fuel, fuel cell, or hybrid powertrain buses or light rail vehicles, on existing public rights-of-way or existing highway rights-of-way, whether or not the right-of-way is in use for public mass transit. The project shall be located on a site that is wholly within the boundaries of an urbanized area or urban cluster, as designated by the United State Census Bureau.

(7) Until January 1, 2040, a public project for the institution or increase of passenger rail service, other than light rail service eligible under paragraph (5), including the construction or rehabilitation of stations, terminals, or existing operations facilities, which will be exclusively used by zero-emission trains. The project shall be located entirely within an existing rail right-of-way or existing highway right-of-way, whether or not the right-of-way is in use for passenger rail transit.

(8) A project to construct or maintain infrastructure to charge or refuel zero-emission transit buses, provided the project is carried out by a public transit agency that is subject to, and in compliance with, the State Air Resources Board's Innovative Clean Transit regulations (Article 4.3 (commencing with Section 2023) of Chapter 1 of Division 3 of Title 13 of the California Code of Regulations) and the project is located on property owned by the transit agency or within an existing public right-of-way.

A lead agency applying an exemption pursuant to this paragraph for hydrogen refueling infrastructure or facilities necessary to refuel or maintain zero-emission public transit buses, trains, or ferries shall hold a noticed public hearing and give notice of the meeting consistent with Public Resources Code section 21080.25(b)(6)(B).

(9) The maintenance, repair, relocation, replacement, or removal of any utility infrastructure associated with a project identified in paragraphs (1) to (6), inclusive.

(10) A project that consists exclusively of a combination of any of the components of a project identified in paragraphs (1) to (7), inclusive.

(11) A planning decision carried out by a local agency to reduce or eliminate minimum parking requirements or institute parking maximums, remove or restrict parking, or implement transportation demand management requirements or programs.

Additional conditions apply to a project otherwise exempt under this section if the project exceeds fifty hundred million dollars ($50,000,000), as set forth in Public Resources Code section 21080.25(d)-(e).

Moreover, a project exempt under this section may be subject to certain labor requirements, including that the project be completed by a skilled and trained workforce, as set forth in Public Resources Code section 21080.25(f).

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If the District determines that a project is not subject to CEQA pursuant to this section and approves that project, the District must file a Notice of Exemption with both the Office of Land Use and Climate Innovation and the County Clerk of the county in which the project is located.

This exemption specifically covering transportation-related projects, such as pedestrian and bicycle facilities, transit prioritization projects, public projects located in an urbanized area or urban cluster, and public projects for the construction or maintenance of infrastructure of facilities to charge, refuel or maintain zero-emission public transit, shall remain in effect only until January 1, 2040, and as of that date it will be repealed.

(Reference: Pub. Resources Code, § 21080.25.)

3.23 TRANSPORTATION PLANS, PEDESTRIAN PLANS, AND BICYCLE TRANSPORTATION PLANS.

CEQA does not apply to an active transportation plan, a pedestrian plan, or a bicycle transportation plan for restriping of streets and highways, bicycle parking and storage, signal timing to improve street and highway intersection operations, the related signage for bicycles, pedestrians, and vehicles, a transit comprehensive operational analysis, transit route readjustment, or other transit agency route addition, elimination, or modification. An active transportation plan or pedestrian plan is encouraged to include the consideration of environmental factors, but that consideration does not inhibit or preclude the application of this section.

An individual project that is part of an active transportation plan or pedestrian plan remains subject to CEQA unless another exemption applies to that project.

Before determining that a project is exempt pursuant to this section, the Lead Agency must hold noticed public hearings in areas affected by the project to hear and respond to public comments. Publication of the notice must comply with Government Code section 6061 and be in a newspaper of general circulation in the area affected by the proposed project.

If the District determines that a project is not subject to CEQA pursuant to this section and approves that project, the District must file a Notice of Exemption with both the Office of Land Use and Climate Innovation and the County Clerk of the county in which the project is located.

For purposes of this section, the following definitions apply:

(1) “Active transportation plan” means a plan developed by a local jurisdiction that promotes and encourages people to choose walking, bicycling, or rolling through the creation of safe, comfortable, connected, and accessible walking, bicycling, or rolling networks, and encourages alternatives to single-occupancy vehicle trips.

(2) “Pedestrian plan” means a plan developed by a local jurisdiction that establishes a comprehensive, coordinated approach to improving pedestrian infrastructure and safety.

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(3) "Transit Comprehensive Operational Analysis" means a plan that redesigns or modifies a transit operator's or local agency's public transit service network, including the routing of fixed route and microtransit services.

(Reference: Pub. Resources Code, § 21080.20.)

3.24 FACILITIES SUPPORTING HIGH-SPEED RAIL

CEQA does not apply to a project that consists of the development, construction, or operation of a heavy maintenance facility for electrically powered high-speed rail if the following conditions are met:

(1) The project was previously evaluated in a project-level EIR that evaluated one or more similar high-speed rail maintenance facility sites

(2) The project incorporates all applicable mitigation measures identified in the prior EIR

(3) The Project site is located within one mile of a rail right-of-way approved for high-speed rail service

CEQA also does not apply to a project that consists of the development, construction, or modification of a proposed passenger rail station, or design changes to a passenger rail station, for the purpose of serving electrically powered high-speed rail, if both of the following conditions are met:

(1) The station or station design change is located within an area previously reviewed in a certified EIR

(2) The project incorporates all applicable mitigation measures identified in the previous EIR

(Reference: Pub. Resources Code, § 21080.70.)

3.25 CERTAIN PUBLIC PARK AND TRAIL PROJECTS

CEQA does not apply to any activity or approval necessary for or incidental to planning, design, site acquisition, construction, operation, or maintenance of public park or nonmotorized recreational trail facilities funded in whole or in part by the Safe Drinking Water, Wildfire Prevent, Drought Preparedness, and Clear Air Bond Act of 2024.

(Reference: Pub. Resources Code, § 21080.57.)

3.26 WATER SYSTEM WELLS AND DOMESTIC WELL PROJECTS

CEQA does not apply to the construction, maintenance, repair, or replacement of a well or a domestic well that meets all of the following conditions:

(1) The domestic well or water system to which the well is connected has been designated by the State Water Resources Control Board ("State Board") as high risk or medium risk in the State Board's drinking water needs assessment;

(2) The well project is designed to mitigate or prevent a failure of the well or the domestic well that would leave residents that rely on the well, the water system to which the well is connected, or the domestic well without an adequate supply of safe drinking water;

(3) The lead agency determines all of the following:

(a) The well project is not designed primarily to serve irrigation or future growth.

(b) The well project does not affect wetlands or sensitive habitats.

(c) Unusual circumstances do not exist that would cause the well project to have a significant effect on the environment.

(d) The well project is not located on a site that is included on any list compiled pursuant to Section 65962.5 of the Government Code.

(e) The well project does not have the potential to cause a substantial adverse change in the significance of a historical resource.

(f) The well project's construction impacts are fully mitigated consistent with applicable law.

(g) The cumulative impact of successive reasonably anticipated projects of the same type as the well project, in the same place, over time, is not significant.

Before determining that a well project is exempt pursuant to this section, a lead agency must contact the State Board to determine whether claiming the exemption under this section will affect the ability of the well project to receive federal financial assistance or federally capitalized financial assistance.

A lead agency that determines that a well project is exempt under this section must file a notice of exemption with both the Office of Land Use and Climate Innovation and the County Clerk. The notice of exemption must explain whether the project is additionally exempt from CEQA under Public Resources Code section 21080 (e.g., whether it is a ministerial project, an emergency repair necessary to maintain service, or an action necessary to prevent or mitigate an emergency), Public Resources Code section 21080.47 (see Section 3.27 of these Local Guidelines, below), or under the Class 1 (Existing Facilities) or Class 2 (Replacement or Reconstruction) categorical exemptions (see Section 3.38 of these Local Guidelines, below). If none of the exemptions referenced in this paragraph apply to a project that is otherwise exempt under this section, the notice of exemption must explain why the exemptions referenced in this paragraph do not apply to the project.

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For purposes of this section, the following definitions apply:

A "well" is defined as a wellhead that provides drinking water to a "water system."

A "domestic well" is defined as a groundwater well used to supply water for the domestic needs of an individual residence or a water system that is not a public water system and that has no more than four service connections.

A "water system" is defined to mean a "public water system" as that term is defined in Health and Safety Code section 116275(h) (i.e., a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year), a "state small water system" as that term is defined in Health and Safety Code section 116275(n) (i.e., a system for the provision of piped water to the public for human consumption that serves at least five, but not more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year), or a tribal water system.

(Pub. Resources Code, § 21080.31 [in effect until January 1, 2028].)

3.27 ROUTINE MAINTENANCE OF STORMWATER FACILITIES

CEQA does not apply to routine maintenance of public stormwater facilities that are fully concrete or have a conveyance capacity of less than a 100-year storm event if all of the following conditions are met:

(1) The project does not increase the designed conveyance capacity of the stormwater facility.

(2) The project is undertaken or approved by a public agency that has adopted, by ordinance, procedures that apply to the project to minimize the impacts of construction equipment, debris, sediment, and other pollutants.

(3) The project is not likely to result in adverse impacts to tribal cultural resources.

Under this bill, if a nonelected decision making body of a city with a population of at least 1,000,000 determines that such a routine maintenance project is exempt from CEQA, that determination may not be appealed to the agency's elected decision making body.

This section will remain in effect until January 1, 2030, and as of that date, is repealed.

(Reference: Pub. Resources Code, § 21080.61.)

3.28 SMALL DISADVANTAGED COMMUNITY WATER SYSTEM AND STATE SMALL WATER SYSTEM.

CEQA does not apply to certain water infrastructure projects that primarily benefit a "small disadvantaged community water system" or a "state small water system," as these terms are

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defined in Public Resources Code section 21080.47. If certain labor requirements and other conditions are met as set forth in Public Resources Code section 21080.47, the installation, repair, or construction of the following for the benefit of a small disadvantaged community water system or state small water system is exempt from CEQA:

(1) Drinking water groundwater wells with a maximum flow rate of up to 250 gallons per minute;

(2) Drinking water treatment facilities with a footprint of less than 2,500 square feet that are not located in an environmentally sensitive area;

(3) Drinking water storage tanks with a capacity of up to 250,000 gallons;

(4) Booster pumps and hydropneumatic tanks;

(5) Pipelines of less than one mile in length in a road right-of-way or up to seven miles in length in a road right-of-way when the project is required to address threatened or current drinking water violations;

(6) Water services lines; and

(7) Minor drinking water system appurtenances, including, but not limited to, system and service meters, fire hydrants, water quality sampling stations, valves, air releases and vacuum break valves, emergency generators, backflow prevention devices, and appurtenance enclosures.

(Reference: Pub. Resources Code, § 21080.47.)

3.29 STATE FUNDED COMMUNITY WATER SYSTEMS

CEQA does not apply to a project, defined in Public Resources Code section 21080.47, that is a community water system that is funded pursuant to the Safe Drinking Water, Wildfire Prevention, Drought Preparedness, and Clean Air Bond Act of 2024 or the State Water Resources Control Board's Safe and Affordable Funding for Equity and Resilience program that does not otherwise include any construction activities if the project does both of the following:

(1) Results in long-term net benefits to climate resiliency, biodiversity, and sensitive species recovery.

(2) Includes procedures and ongoing management for the protection of the environment.

(Reference: Pub. Resources Code, § 21080.48.)

3.30 WILDFIRE RISK REDUCTION PROJECTS

CEQA does not apply to the following wildfire risk reduction projects:

(1) Projects consisting of a prescribed fire or fuel reduction to reduce wildfire risk by reestablishing the fire return interval appropriate to the ecosystem for biodiversity

or other benefits, excluding projects located on coastal sage scrub habitat or any other sensitive habitat. In order to qualify, all of the following requirements must be met:

a. The project shall not exceed 50 contiguous acres and shall be located within one-half mile of a subdivision of 30 or more dwelling units.

b. The lead agency shall consult with the Department of Fish and Wildlife to avoid or minimize, to the extent feasible, impacts to candidate, rare, threatened, endangered plants and wildlife along with wildlife nursery sites

c. The lead agency shall, to the extent feasible, design the project to avoid impacts to riparian areas and water quality through use of sediment and erosion control measures

d. The lead agency shall identify and, to the extent feasible, protect tribal cultural resources that may be impacted by the project.

(2) Projects consisting of "defensible space" fire clearance of up to 100 feet, as measured from the center line of the roadway, for a public roadway identified as an egress and evacuation route for a subdivision or community of 30 or more dwelling units, to remove flammable vegetation or trees of less than 12 inches in diameter as measured at chest height.

(3) Projects consisting of the establishment or enhancement of residential home hardening or defensible space for wildfire risk reduction within 200 feet of a legal structure located in a high or very high wildfire hazard zone.

(4) Projects consisting of a fuel break that extends up to 200 feet from structures, including the clearance of flammable vegetation and trees less than 12 inches in diameter as measured at chest height.

(Reference: Pub. Resources Code, § 21080.49.)

3.31 WILDFIRE DEFENSIBLE SPACE REQUIREMENTS

CEQA does not apply to ordinances, designed by a local agency responsible for fire protection, designating defensible space requirements based on regulations promulgated by the State Board of Forestry and Fire Protection.

In developing the ordinance, a local agency may, in order to meet the intent of the State Board of Forestry and Fire Protection regulations, consider local variations in local fire hazards, geography, development, and other conditions and authorize alternative practices to those in the State Board of Forestry and Fire Protection regulations, if the alternative practices provide for substantially similar practical effects as those stated in the State Board of Forestry and Fire Protection regulations. This subdivision does not preclude a local agency from adopting an ordinance designating defensible space requirements that are more stringent than the regulations adopted by the State Board of Forestry and Fire Protection.

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(Reference: Government Code, §§ 51182(f)(1), 51182.4.)

3.32 CONSERVATION AND RESTORATION OF CALIFORNIA NATIVE FISH AND WILDLIFE.

(a) CEQA does not apply to a project that is exclusively one of the following (though a project may exclusively be one of the following even if it has incidental public benefits, such as public access or recreation) and meets the criteria set forth in subdivision (b) of this section:

(1) A project to conserve, restore, protect, or enhance, and assist in the recovery of California native fish and wildlife, and the habitat upon which they depend.

(2) A project to restore or provide habitat for California native fish and wildlife.

(b) This section does not apply to a project unless the project does both of the following:

(1) Results in long-term net benefits to climate resiliency, biodiversity, and sensitive species recovery; and

(2) Includes procedures and ongoing management for the protection of the environment.

(c) This section does not apply to a project that includes construction activities, except for construction activities solely related to habitat restoration.

(d) The lead agency shall obtain the concurrence of the Director of Fish and Wildlife for the determinations required pursuant to subdivisions (a) through (c) above.

(e) Within 48 hours of making a determination that a project is exempt pursuant to this section, the lead agency shall file a Notice of Exemption with the Office of Land Use and Climate Innovation, and the Department of Fish and Wildlife must post the concurrence of the Director of Fish and Wildlife on the department's website.

This exemption is in effect until January 1, 2030. (Pub. Resources Code, § 21080.56.)

3.33 LINEAR BROADBAND DEPLOYMENT IN A RIGHT-OF-WAY.

(a) CEQA does not apply to a project that consists of linear broadband deployment in a right-of-way if the project meets all of the following conditions:

(1) The project is located in an area identified by the Public Utilities Commission as a component of the statewide open-access middle-mile broadband network pursuant to Section 11549.54 of the Government Code.

(2) The project is constructed along, or within 30 feet of, the right-of-way of any public road or highway.

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(3) The project is either deployed underground where the surface area is restored to a condition existing before the project or placed aerially along an existing utility pole right-of-way.

(4) The project incorporates, as a condition of project approval, measures developed by the Public Utilities Commission or the Department of Transportation to address potential environmental impacts. At a minimum, the project shall be required to include monitors during construction activities and measures to avoid or address impacts to cultural and biological resources.

(5) The project applicant agrees to comply with all conditions otherwise authorized by law, imposed by the planning department of a city or county as part of a local agency permit process, that are required to mitigate potential impacts of the proposed project, and to comply with the Keene-Nejedly California Wetlands Preservation Act (Chapter 7 (commencing with Section 5810) of Division 5), the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code), as applicable, other applicable state laws, and all applicable federal laws.

(b) If a project meets all of the requirements of subdivision (a), the project applicant shall do all of the following:

(1) Notify, in writing, any affected public agency, including, but not limited to, any public agency having permit, land use, environmental, public health protection, or emergency response authority, of the exemption of the project pursuant to this section.

(2) File a Notice of Exemption.

(3) In the case of private rights-of-way over private property, receive from the underlying property owner permission for access to the property.

(4) Comply with all conditions authorized by law imposed by the planning department of a city or county as part of any local agency permit process, that are required to mitigate potential impacts of the proposed project, and otherwise comply with the Keene-Nejedly California Wetlands Preservation Act (Chapter 7 (commencing with Section 5810) of Division 5), the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code), as applicable, other applicable state laws, and all applicable federal laws.

(Pub. Resources Code, § 21080.51.)

3.34 DAYCARE CENTERS, RURAL HEALTH CLINICS, FOOD BANKS, AND ADVANCED MANUFACTURING FACILITIES

CEQA does not apply to the following projects:

(1) Projects that consist exclusively of a day care center, as defined in Section 1596.76 of the Health and Safety Code, that is not located in a residential area.

(2) Projects that consist exclusively of a rural health clinic or federally qualified health center.

(3) Projects that consist exclusively of a facility for advanced manufacturing if the project is located on a site that is zoned exclusively for industrial uses.

(4) Projects that consist exclusively of a nonprofit food bank or food pantry that solicits, stores, and distributes sufficient food to their defined service area, if the project is located on a site that is zoned exclusively for industrial uses.

(Reference: Pub. Resources Code § 21080.69.)

3.35 NEEDLE AND SYRINGE EXCHANGE SERVICES.

The Legislature has authorized cities and counties meeting certain requirements to apply to the State Department of Public Health for authorization to provide hypodermic needle and syringe exchange services consistent with state standards in any location where the State Department of Public Health determines that the conditions exist for the rapid spread of human immunodeficiency virus (HIV), viral hepatitis, or any other potentially deadly or disabling infections that are spread through the sharing of used hypodermic needles and syringes. (Health and Safety Code, § 121349.) Needle and syringe exchange services application submissions, authorizations, and operations performed pursuant to Health and Safety Code section 121349 are exempt from review under CEQA. (Health and Safety Code, § 121349(h).)

3.36 REPRODUCTIVE SERVICES COMMUNITY CLINIC

CEQA does not apply to the approval of an application of a community clinic providing reproductive health services if the application meets objective planning standards and is subject to the ministerial review process set forth in Government Code section 65914.900. The following objective planning standards must be satisfied for the development project to qualify for the ministerial approval:

(1) the development must be on a parcel that is within a zone where office, retail, health care, or parking are a principally permitted use;

(2) the development must be for a community clinic licensed pursuant to Section 1204 of the Health and Safety Code that provides reproductive health services as defined in subdivision (f) of Section 423.1 of the Penal Code;

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(3) the development must comply with minimum construction standards of adequacy and safety for the physical plant of primary care clinics found in the Building Standards Code;

(4) the development must meet all of the local agency's objective design review standards;

(5) the development must not require the demolition of a historic structure;

(6) the development must not be located on a site described in paragraph (6) of subdivision (a) of Section 65913.4 of the Government Code;

(7) the project must not bet likely to result in adverse impacts to tribal cultural resources; and

(8) the development must not require the demolition of housing.

A local agency, within 60 calendar days of receiving an application pursuant to these provisions, must approve or deny the application subject to specified requirements, including that, among other things, if the local agency determines that the development is in conflict with any of the above-described standards, the local agency is required to provide the development proponent written documentation of which standard or standards the development conflicts with, as specified.

For more information about these requirements, consult Government Code, section 65914.900.

3.37 OTHER SPECIFIC EXEMPTIONS.

CEQA and the State CEQA Guidelines exempt many other specific activities, including early activities related to thermal power plants, ongoing projects, transportation improvement programs, family day care homes, congestion management programs, railroad grade separation projects, restriping of streets or highways to relieve traffic congestion, hazardous or volatile liquid pipelines, and the installation of solar energy systems, including, but not limited to solar panels. Specific statutory exemptions are listed in the Public Resources Code, including Sections 21080 through 21080.35, and in the State CEQA Guidelines, including Sections 15260 through 15285. In addition, other titles of the California Codes provide statutory exemptions from CEQA, including, for example, Government Code section 12012.70.

3.38 CATEGORICAL EXEMPTIONS.

The State CEQA Guidelines establish certain classes of categorical exemptions. These apply to classes of projects which have been determined not to have a significant effect on the environment and which, therefore, are generally exempt from CEQA. For any project that falls within one of these classes of categorical exemptions, the preparation of environmental documents under CEQA is not required. The classes of projects are briefly summarized below. (Reference to the State CEQA Guidelines for the full description of each exemption is recommended.)

The exemptions for Classes 3, 4, 5, 6, and 11 below are qualified in that such projects must be considered in light of the location of the project. A project that is ordinarily insignificant in its

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impact on the environment may, in a particularly sensitive environment, be significant. Therefore, these classes are considered to apply in all instances except when the project may impact an environmental resource of hazardous or critical concern that has been designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

All classes of categorical exemptions are qualified. None of the categorical exemptions are applicable if any of the following circumstances exist:

(1) The cumulative impact of successive projects of the same type in the same place over time is significant;

(2) There is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances;

(3) The project may result in damage to a scenic resource or may result in a substantial adverse change to a historical resource; or

(4) The project is located on a site which is included on any hazardous waste site or list compiled pursuant to Government Code section 65962.5.

However, a project's greenhouse gas emissions do not, in and of themselves, cause an exemption to be inapplicable if the project otherwise complies with all applicable regulations or requirements adopted to implement statewide, regional, or local plans consistent with State CEQA Guidelines section 15183.5.

With the foregoing limitations in mind, the following classes of activity are generally exempt from CEQA:

Class 1: Existing Facilities. Activities involving the operation, repair, maintenance, permitting, leasing, licensing, minor alteration of—or legislative activities to regulate—existing public or private structures, facilities, mechanical equipment or other property, or topographical features, provided the activity involves negligible or no expansion of existing or former use. The types of "existing facilities" itemized in State CEQA Guidelines section 15301 are not intended to be all-inclusive of the types of projects which might fall within the Class 1 categorical exemption. The key consideration is whether the project involves negligible or no expansion of use. (State CEQA Guidelines, § 15301.)

Class 2: Replacement or Reconstruction. Replacement or reconstruction of existing facilities, structures, or other property where the new facility or structure will be located on the same site as the replaced or reconstructed facility or structure and will have substantially the same purpose and capacity as the replaced or reconstructed facility or structure. (State CEQA Guidelines, § 15302.)

Class 3: New Construction or Conversion of Small Structures. Construction of limited numbers of small new facilities or structures; installation of small new equipment or facilities in small structures; and the conversion of existing small structures from one use to another, when only minor modifications are made in the exterior of the structure. This exemption includes

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structures built for both residential and commercial uses. (State CEQA Guidelines, § 15303 outlines, among other things, the maximum number of structures allowable under this exemption].)

Class 4: Minor Alterations to Land. Minor alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees, except for forestry or agricultural purposes. (State CEQA Guidelines, § 15304.)

Class 5: Minor Alterations in Land Use Limitations. Minor alterations in land use limitations in areas with an average slope of less than 20% which do not result in any changes in land use or density. (State CEQA Guidelines, § 15305.)

Class 6: Information Collection. Basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. (State CEQA Guidelines, § 15306.)

Class 7: Actions by Regulatory Agencies for Protection of Natural Resources. Actions taken by regulatory agencies as authorized by state law or local ordinance to assure the maintenance, restoration, or enhancement of a natural resource where the regulatory process involves procedures for protection of the environment. (State CEQA Guidelines, § 15307.)

Class 8: Actions By Regulatory Agencies for Protection of the Environment. Actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement or protection of the environment where the regulatory process involves procedures for protection of the environment. (State CEQA Guidelines, § 15308.)

Class 9: Inspection. Inspection activities, including, but not limited to, inquiries into the performance of an operation and examinations of the quality, health or safety of a project. (State CEQA Guidelines, §15309.)

Class 10: Loans. Loans made by the Department of Veterans Affairs under the Veterans Farm and Home Purchase Act of 1943, mortgages for the purchase of existing structures where the loan will not be used for new construction and the purchase of such mortgages by financial institutions. (State CEQA Guidelines, § 15310.)

Class 11: Accessory Structures. Construction or replacement of minor structures accessory or appurtenant to existing commercial, industrial, or institutional facilities, including, but not limited to, on-premise signs; small parking lots; and placement of seasonal or temporary use items, such as lifeguard towers, mobile food units, portable restrooms or similar items in generally the same locations from time to time in publicly owned parks, stadiums or other facilities designed for public use. (State CEQA Guidelines, §15311.)

Class 12: Surplus Government Property Sales. Sales of surplus government property, except for certain parcels of land located in an area of statewide, regional or area-wide concern identified in State CEQA Guidelines section 15206(b)(4). However, even if the surplus property to be sold is located in any of those areas, its sale is exempt if:

(a) The property does not have significant values for wildlife or other environmental purposes; and

(b) Any one of the following three conditions is met:
1. The property is of such size, shape, or inaccessibility that it is incapable of independent development or use;
2. The property to be sold would qualify for an exemption under any other class of categorical exemption in the State CEQA Guidelines; or
3. The use of the property and adjacent property has not changed since the time of purchase by the public agency.

(State CEQA Guidelines, § 15312.)

Class 13: Acquisition of Lands for Wildlife Conservation Purposes. Acquisition of lands for fish and wildlife conservation purposes, including preservation of fish and wildlife habitat, establishment of ecological preserves under Fish and Game Code section 1580, and preservation of access to public lands and waters where the purpose of the acquisition is to preserve the land in its natural condition. (State CEQA Guidelines, § 15313.)

Class 14: Minor Additions to Schools. Minor additions to existing schools within existing school grounds where the addition does not increase original student capacity by more than 25% or ten (10) classrooms, whichever is less. The addition of portable classrooms is included in this exemption. (State CEQA Guidelines, § 15314.)

Class 15: Minor Land Divisions. Division(s) of property in urbanized areas zoned for residential, commercial or industrial use into four or fewer parcels when the division is in conformance with the General Plan and zoning, no variances or exceptions are required, all services and access to the proposed parcels to local standards are available, the parcel was not involved in a division of a larger parcel within the previous two (2) years, and the parcel does not have an average slope greater than 20%. (State CEQA Guidelines, §15315.)

Class 16: Transfer of Ownership of Land in Order to Create Parks. Acquisition, sale, or other transfer of land in order to establish a park where the land is in a natural condition or contains historical or archaeological resources and either:

(a) The management plan for the park has not been prepared, or
(b) The management plan proposes to keep the area in a natural condition or preserve the historic or archaeological resources.

CEQA will apply when a management plan is proposed that will change the area from its natural condition or cause substantial adverse change in the significance of the historic or archaeological resource. (State CEQA Guidelines, § 15316.)

Class 17: Open Space Contracts or Easements. Establishment of agricultural preserves, making and renewing of open space contracts under the Williamson Act, or acceptance of easements or fee interests in order to maintain the open space character of the area. (The cancellation of such preserves, contracts, interests or easements is not included in this exemption.) (State CEQA Guidelines, § 15317.)

Class 18: Designation of Wilderness Areas. Designation of wilderness areas under the California Wilderness System. (State CEQA Guidelines, § 15318.)

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Class 19: Annexations of Existing Facilities and Lots for Exempt Facilities.
This exemption applies only to the following annexations:

(a) Annexations to a city or special district of areas containing existing public or private structures developed to the density allowed by the current zoning or prezoning of either the gaining or losing governmental agency, whichever is more restrictive; provided, however, that the extension of utility services to the existing facilities would have a capacity to serve only the existing facilities; and
(b) Annexations of individual small parcels of the minimum size for facilities exempted by Class 3, New Construction or Conversion of Small Structures.

(State CEQA Guidelines, § 15319.)

Class 20: Changes in Organization of Local Agencies. Changes in the organization of local governmental agencies where the changes do not change the geographical area in which previously existing powers are exercised. Examples include but are not limited to:

(a) Establishment of a subsidiary district;
(b) Consolidation of two or more districts having identical powers; and
(c) Merger with a city of a district lying entirely within the boundaries of the city.

(State CEQA Guidelines, § 15320.)

Class 21: Enforcement Actions by Regulatory Agencies. Actions by regulatory agencies to enforce or revoke a lease, permit, license, certificate or other entitlement for use issued, adopted or prescribed by the regulatory agency or enforcement of a law, general rule, standard or objective administered or adopted by the regulatory agency; or law enforcement activities by peace officers acting under any law that provides a criminal sanction. The direct referral of a violation of lease, permit, license, certificate, or entitlement to the City Attorney for judicial enforcement is exempt under this Class. (Construction activities undertaken by the public agency taking the enforcement or revocation action are not included in this exemption.) (State CEQA Guidelines, § 15321.)

Class 22: Educational or Training Programs Involving No Physical Changes. The adoption, alteration or termination of educational or training programs which involve no physical alteration in the area affected or which involve physical changes only in the interior of existing school or training structures. Examples include but are not limited to:

(a) Development of or changes in curriculum or training methods; or
(b) Changes in the trade structure in a school which do not result in changes in student transportation. (State CEQA Guidelines, § 15322.)

Class 23: Normal Operations of Facilities for Public Gatherings. Continued or repeated normal operations of existing facilities for public gatherings for which the facilities were designed, where there is past history, of at least three years, of the facility being used for the same or similar purposes. Facilities included within this exemption include, but are not limited to, race tracks, stadiums, convention centers, auditoriums, amphitheaters, planetariums, swimming pools and amusement parks. (State CEQA Guidelines, § 15323.)

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Class 24: Regulation of Working Conditions. Actions taken by the District to regulate employee wages, hours of work or working conditions where there will be no demonstrable physical changes outside the place of work. (State CEQA Guidelines, § 15324.)

Class 25: Transfers of Ownership of Interest in Land to Preserve Existing Natural Conditions and Historical Resources. Transfers of ownership of interest in land in order to preserve open space, habitat, or historical resources. Examples include, but are not limited to, acquisition, sale, or other transfer of areas to: preserve existing natural conditions, including plant or animal habitats; allow continued agricultural use of the areas; allow restoration of natural conditions; preserve open space or lands for natural park purposes; or prevent encroachment of development into floodplains. This exemption does not apply to the development of parks or park uses. (State CEQA Guidelines, § 15325.)

Class 26: Acquisition of Housing for Housing Assistance Programs. Actions by a redevelopment agency, housing authority or other public agency to implement an adopted Housing Assistance Plan by acquiring an interest in housing units, provided the housing units are either in existence or possessing all required permits for construction when the agency makes its final decision to acquire the units. (State CEQA Guidelines, § 15326.)

Class 27: Leasing New Facilities. Leasing of a newly constructed or previously unoccupied privately owned facility by a local or state agency when the District determines that the proposed use of the facility:

(a) Conforms with existing state plans and policies and with general, community, and specific plans for which an EIR or Negative Declaration has been prepared;
(b) Is substantially the same as that originally proposed at the time the building permit was issued;
(c) Does not result in a traffic increase of greater than 10% of front access road capacity; and
(d) Includes the provision of adequate employee and visitor parking facilities.

(State CEQA Guidelines, § 15327.)

Class 28: Small Hydroelectric Projects as Existing Facilities. Installation of certain small hydroelectric-generating facilities in connection with existing dams, canals and pipelines, subject to the conditions in State CEQA Guidelines section 15328. (State CEQA Guidelines, § 15328.)

Class 29: Cogeneration Projects at Existing Facilities. Installation of cogeneration equipment with a capacity of 50 megawatts or less at existing facilities meeting certain conditions listed in State CEQA Guidelines section 15329. (State CEQA Guidelines, § 15329.)

Class 30: Minor Actions to Prevent, Minimize, Stabilize, Mitigate or Eliminate the Release or Threat of Release of Hazardous Waste or Hazardous Substances. Any minor cleanup actions taken to prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release of a hazardous waste or substance which are small or medium removal actions costing $1 million or less.

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(a) No cleanup action shall be subject to this Class 30 exemption if the action requires the onsite use of a hazardous waste incinerator or thermal treatment unit or the relocation of residences or businesses, or the action involves the potential release into the air of volatile organic compounds as defined in Health and Safety Code section 25123.6, except for small scale in situ soil vapor extraction and treatment systems which have been permitted by the local Air Pollution Control District or Air Quality Management District. All actions must be consistent with applicable state and local environmental permitting requirements including, but not limited to, off-site disposal, air quality rules such as those governing volatile organic compounds and water quality standards, and approved by the regulatory body with jurisdiction over the site;

(b) Examples of such minor cleanup actions include but are not limited to:

1. Removal of sealed, non-leaking drums of hazardous waste or substances that have been stabilized, containerized and are designated for a lawfully permitted destination;
2. Maintenance or stabilization of berms, dikes, or surface impoundments;
3. Construction or maintenance or interim of temporary surface caps;
4. Onsite treatment of contaminated soils or sludge provided treatment system meets Title 22 requirements and local air district requirements;
5. Excavation and/or offsite disposal of contaminated soils or sludge in regulated units;
6. Application of dust suppressants or dust binders to surface soils;
7. Controls for surface water run-on and run-off that meets seismic safety standards;
8. Pumping of leaking ponds into an enclosed container;
9. Construction of interim or emergency ground water treatment systems; or
10. Posting of warning signs and fencing for a hazardous waste or substance site that meets legal requirements for protection of wildlife.

(State CEQA Guidelines, § 15330.)

Class 31: Historical Resource Restoration/Rehabilitation. Maintenance, repairs, stabilization, rehabilitation, restoration, preservation, conservation, or reconstruction of historical resources in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), Weeks and Grimmer. (State CEQA Guidelines, § 15331.)

Class 32: Infill Development Projects. Infill development meeting the following conditions:

(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations;

(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses;

(c) The project site has no value as habitat for endangered, rare or threatened species;

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(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality; and

(e) The site can be adequately served by all required utilities and public services.

(State CEQA Guidelines, § 15332.)

Class 33: Small Habitat Restoration Projects.

This exemption applies to projects to assure the maintenance, restoration, enhancement, or protection of habitat for fish, plants, or wildlife, provided that such projects meet the following criteria:

(a) The project does not exceed five acres in size;

(b) There would be no significant adverse impact on endangered, rare or threatened species or their habitat pursuant to Section 15065 of the State CEQA Guidelines;

(c) There are no hazardous materials at or around the project site that may be disturbed or removed; and

(d) The project will not result in impacts that are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Examples of small habitat restoration projects include, but are not limited to: revegetation of disturbed areas with native plant species; wetland restoration, the primary purpose of which is to improve conditions for waterfowl or other species that rely on wetland habitat; stream or river bank revegetation, the primary purpose of which is to improve habitat for amphibians or native fish; projects to restore or enhance habitat that are carried out principally with hand labor and not mechanized equipment; stream or river bank stabilization with native vegetation or other bioengineering techniques, the primary purpose of which is to reduce or eliminate erosion and sedimentation; and culvert replacement conducted in accordance with published guidelines of DFW or NOAA Fisheries, the primary purpose of which is to improve habitat or reduce sedimentation. (State CEQA Guidelines, § 15333.)

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4. TIME LIMITATIONS

4.01 REVIEW OF PRIVATE PROJECT APPLICATIONS.

Staff shall determine whether the application for a private project is complete within thirty (30) days of receipt of the application. No application may be deemed incomplete based on an applicant's refusal to waive the time limitations set forth in Local Guidelines Sections 4.03 and 4.04.

Accepting an application as complete does not limit the authority of the District, acting as Lead Agency or Responsible Agency, to require the applicant to submit additional information needed for environmental evaluation of the project. Requiring such additional information after the application is complete does not change the status of the application.

(Reference: State CEQA Guidelines, § 15101.)

4.02 DETERMINATION OF TYPE OF ENVIRONMENTAL DOCUMENT.

Except as provided in Local Guidelines Sections 4.05 and 4.06, Staff's initial determination as to whether a Negative Declaration, Mitigated Negative Declaration or an EIR should be prepared shall be made within thirty (30) days from the date on which an application for a project is accepted as complete by the District. This period may be extended fifteen (15) days with consent of the applicant and the District.

(Reference: State CEQA Guidelines, § 15102.)

4.03 COMPLETION AND ADOPTION OF NEGATIVE DECLARATION.

For private projects involving the issuance of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies, the Negative Declaration/Mitigated Negative Declaration shall be completed and approved within one hundred eighty (180) days from the date when the District accepted the application as complete. In the event that compelling circumstances justify additional time and the project applicant and Lead Agency consent thereto, Staff may provide that the 180-day time limit may be extended once for a period of not more than 90 days.

(Reference: State CEQA Guidelines, § 15107.)

4.04 COMPLETION AND CERTIFICATION OF FINAL EIR.

For private projects, the Final EIR shall be completed and certified by the District within one (1) year after the date the District accepted the application as complete. In the event that compelling circumstances justify additional time and the project applicant consents thereto, the District may provide a one-time extension up to ninety (90) days for completing and certifying the EIR.

(Reference: State CEQA Guidelines, § 15108.)

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4.05 PROJECTS SUBJECT TO THE PERMIT STREAMLINING ACT.

The Permit Streamlining Act requires agencies to make decisions on certain development project approvals within specified time limits. If a project is subject to the Permit Streamlining Act, the District cannot require the project applicant to submit the informational equivalent of an EIR or prove compliance with CEQA as a prerequisite to determining whether the project application is complete. In addition, if requested by the project applicant, the District must begin processing the project application prior to final CEQA action, provided the information necessary to begin the process is available.

(Reference: Gov. Code §§ 65941, 65944.)

Under the Permit Streamlining Act, the Lead Agency must approve or disapprove the development project application within one hundred eighty (180) days from the date on which it certifies the EIR, or within ninety (90) days of certification if an extension for completing and certifying the EIR was granted. If the Lead Agency adopts a Negative Declaration/Mitigated Negative Declaration or determines the development project is exempt from CEQA, it shall approve or disapprove the project application within sixty (60) days from the date on which it adopts the Negative Declaration/Mitigated Negative Declaration or determines that the project is exempt from CEQA.

(Reference: Gov. Code §§ 65950, 65950.1; see also State CEQA Guidelines, § 15107.)

Except for waivers of the time periods for preparing a joint Environmental Impact Report/Environmental Impact Statement (as outlined in Government Code sections 65951 and 65957), the District cannot require a waiver of the time limits specified in the Permit Streamlining Act as a condition of accepting or processing a development project application. In addition, the District cannot disapprove a development project application in order to comply with the time limits specified in the Permit Streamlining Act.

(Reference: Gov. Code §§ 65940.5, 65952.2.)

4.06 PROJECTS, OTHER THAN THOSE SUBJECT TO THE PERMIT STREAMLINING ACT, WITH SHORT TIME PERIODS FOR APPROVAL.

A few statutes require agencies to make decisions on project applications within time limits that are so short that review of the project under CEQA would be difficult. To enable the District as Lead Agency to comply with both the enabling statute and CEQA, the District shall deem a project application as not received for filing under the enabling statute until such time as the environmental documentation required by CEQA is complete. This section applies where all of the following conditions are met:

(a) The enabling statute for a program, other than development projects under Chapter 4.5 (commencing with Section 65920) of Division 1 of Title 7 of the Government Code, requires the District to take action on an application within a specified period of time of six (6) months or less;
(b) The enabling statute provides that the project is approved by operation of law if the District fails to take any action within the specified time period; and

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(c) The project application involves the District's issuance of a lease, permit, license, certificate or other entitlement for use.

In any case, the environmental document shall be completed or certified and the decision on the application shall be made within the period established by the Permit Streamlining Act (Government Code sections 65920, et seq.).

(Reference: State CEQA Guidelines, § 15111.)

4.07 WAIVER OR SUSPENSION OF TIME PERIODS.

These deadlines may be waived by the applicant if the project is subject to both CEQA and the National Environmental Policy Act ("NEPA").

An unreasonable delay by an applicant in meeting the District's requests necessary for the preparation of a Negative Declaration, Mitigated Negative Declaration, or an EIR shall suspend the running of the time periods described in Local Guidelines sections 4.03 and 4.04 for the period of the unreasonable delay. Alternatively, the District may disapprove a project application where there is unreasonable delay in meeting requests. The District may also allow a renewed application to start at the same point in the process where the prior application was when it was disapproved.

(Reference: State CEQA Guidelines, §§ 15109, 15110, and 15224; see Section 5.04 of these Local Guidelines for information about projects that are subject to both CEQA and NEPA.)

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5. INITIAL STUDY

5.01 PREPARATION OF INITIAL STUDY.

If the District determines that it is the Lead Agency for a project which is not exempt, the District will normally prepare an Initial Study to ascertain whether the project may have a substantial adverse effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial. All phases of project planning, implementation and operation must be considered in the Initial Study. An Initial Study may rely on expert opinion supported by facts, technical studies or other substantial evidence. However, an Initial Study is neither intended nor required to include the level of detail included in an EIR.

The District, as Lead Agency, may use any of the following arrangements or combination of arrangements to prepare an Initial Study:

(1) Preparing the Initial Study directly with the District's own staff.

(2) Contracting with another entity, public or private, to prepare the Initial Study.

(3) Accepting a draft Initial Study prepared by the applicant, a consultant retained by the applicant, or any other third person.

(4) Executing a third party contract or memorandum of understanding with the applicant to govern the preparation of an Initial Study by an independent contractor.

(5) Using a previously prepared Initial Study.

The Initial Study sent out for public review, however, must reflect the independent judgment of the Lead Agency.

For private projects, the person or entity proposing to carry out the project shall complete Form "I" of these Local CEQA Guidelines, submit the completed Form "I" to the District, and submit all other data and information as may be required by the District to determine whether the proposed project may have a significant effect on the environment. All costs incurred by the District in reviewing the data and information submitted, or in conducting its own investigation based upon such data and information, or in preparing an Initial Study for the project shall be borne by the person or entity proposing to carry out the project.

(Reference: State CEQA Guidelines, §§ 15063, 15084.)

5.02 INFORMAL CONSULTATION WITH OTHER AGENCIES.

When more than one public agency will be involved in undertaking or approving a project, the Lead Agency shall consult with all Responsible and any Trustee Agencies. Such consultation shall be undertaken in compliance with the notice procedures applicable to the type of CEQA document being prepared. See Section 6.04, Negative Declarations, and Sections 7.03 and 7.25, EIRs.

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When the District is acting as Lead Agency, the District may choose to engage in early consultation with Responsible and Trustee Agencies before the District begins to prepare the Initial Study. This early consultation may be done quickly and informally and is intended to ensure that the EIR, Negative Declaration or Mitigated Negative Declaration reflects the concerns of all Responsible Agencies that will issue approvals for the project and all Trustee Agencies responsible for natural resources affected by the project. The District's early consultation process may include consultation with other individuals or organizations with an interest in the project, if the District so desires. The Office of Land Use and Climate Innovation ("LCI"), upon request of the District or a private project applicant, shall assist in identifying the various Responsible Agencies for a proposed project and ensure that the Responsible Agencies are notified regarding any early consultation. In the case of a project undertaken by a public agency, the LCI, upon request of the District, shall ensure that any Responsible Agency or public agency that has jurisdiction by law with respect to the project is notified regarding any early consultation.

If, during the early consultation process it is determined that the project will clearly have a significant effect on the environment, the District, as Lead Agency, may immediately dispense with the Initial Study and determine that an EIR is required.

(Reference: State CEQA Guidelines, § 15063.)

5.03 CONSULTATION WITH PRIVATE PROJECT APPLICANT.

During or immediately after preparation of an Initial Study for a private project, the District may consult with the applicant to determine if the applicant is willing to modify the project to reduce or avoid the significant effects identified in the Initial Study. If the project can be revised to avoid or mitigate effects to a level of insignificance and there is no substantial evidence before the District that the project, as revised, may have a significant effect on the environment, the District may prepare and adopt a Negative Declaration or Mitigated Negative Declaration. If any significant effect may still occur despite alterations of the project, an EIR must be prepared.

(Reference: State CEQA Guidelines, § 15063(g).)

5.04 PROJECTS SUBJECT TO NEPA.

Projects that are carried out, financed, or approved in whole or in part by a federal agency are subject to the provisions of NEPA in addition to CEQA. To the extent possible, the State CEQA Guidelines encourage the District, when it is a Lead Agency under CEQA, to use the federally-prepared Environmental Impact Statement ("EIS") or Finding of No Significant Impact ("FONSI") or to prepare a joint CEQA/NEPA document instead of preparing separate NEPA and CEQA documents for a project that is subject to both NEPA and CEQA. (State CEQA Guidelines, § 15220.)

For example, the District should attempt to work in conjunction with the federal agency involved in the project to prepare a combined EIR-EIS or Negative Declaration-FONSI. (State CEQA Guidelines, § 15222.) To avoid the need for the federal agency to prepare a separate document for the same project, the Lead Agency must involve the federal agency in the preparation of the joint document. The Lead Agency may also enter into a Memorandum of Understanding with the federal agency to ensure that both federal and state requirements are met.

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The District is required to cooperate with the federal agency and to utilize joint planning processes, environmental research and studies, public hearings, and environmental documents to the fullest extent possible. (State CEQA Guidelines, § 15226.) However, since NEPA does not require an examination of mitigation measures or growth-inducing impacts, analysis of mitigation measures and growth-inducing impacts will need to be added before NEPA documents may be used to satisfy CEQA. (State CEQA Guidelines, § 15221.)

For projects that are subject to NEPA, a scoping meeting held pursuant to NEPA satisfies the CEQA scoping requirement as long as notice is provided to the agencies and individuals listed in Local Guidelines Section 7.10, and provided in accordance with these Local Guidelines.

If the federal agency refuses to cooperate with the District with regard to the preparation of joint documents, the District should attempt to involve a state agency in the preparation of the EIR, Negative Declaration, or Mitigated Negative Declaration. Since federal agencies are explicitly permitted to utilize environmental documents prepared by agencies of statewide jurisdiction, it is possible that the federal agency will reuse the state-prepared CEQA documents instead of requiring the applicant to fund a redundant set of federal environmental documents. (State CEQA Guidelines, § 15228.)

Where the federal agency has circulated the EIS or FONSI and the circulation satisfied the requirements of CEQA and any other applicable laws, the District, when it is a Lead Agency under CEQA, may use the EIS or FONSI in place of an EIR or Negative Declaration without having to recirculate the federal documents. The District's intention to adopt the previously circulated EIS or FONSI must be publicly noticed in the same way as a Notice of Availability of a Draft EIR. Special rules may apply when the environmental documents are prepared for projects involving the reuse of military bases. (See State CEQA Guidelines, § 15225.)

5.05 AN INITIAL STUDY.

The Initial Study shall be used to determine whether a Negative Declaration, Mitigated Negative Declaration or an EIR shall be prepared for a project. It provides written documentation of whether the District found evidence of significant adverse impacts which might occur. The purposes of an Initial Study are to:

(a) Identify environmental impacts;
(b) Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is written;
(c) Focus an EIR, if one is required, on potentially significant environmental effects;
(d) Facilitate environmental assessment early in the design of a project;
(e) Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;
(f) Eliminate unnecessary EIRs; and
(g) Determine whether a previously prepared EIR could be used for the project.

(Reference: State CEQA Guidelines, § 15063.)

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5.06 CONTENTS OF INITIAL STUDY.

An Initial Study shall contain in brief form:

(a) A description of the project, including the location of the project. The project description must be consistent throughout the environmental review process;
(b) An identification of the environmental setting. The environmental setting is usually the existing physical environmental conditions in the vicinity of the project, as they exist at the time the Notice of Preparation is published, or if no Notice of Preparation is published, such as in the case of a Negative Declaration or Mitigated Negative Declaration, at the time environmental analysis begins. The environmental setting should describe both the project site and surrounding properties. The description should include, but not necessarily be limited to, a discussion of existing structures, land use, energy supplies, topography, water usage, soil stability, plants and animals, and any cultural, historical, or scenic aspects. This environmental setting will normally constitute the baseline physical conditions against which a Lead Agency may compare the project to determine whether an impact is significant;
(c) An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries are briefly explained to show the evidence supporting the entries. The brief explanation may be through either a narrative or a reference to other information such as attached maps, photographs, or an earlier EIR or Negative Declaration or Mitigated Negative Declaration. A reference to another document should include a citation to the page or pages where the information is found;
(d) A discussion of ways to mitigate any significant effects identified;
(e) An examination of whether the project is consistent with existing zoning and local land use plans and other applicable land use controls;
(f) The name of the person or persons who prepared or participated in the Initial Study; and
(g) Identification of prior EIRs or environmental documents that could be used with the project.

(Reference: State CEQA Guidelines, § 15063(d).)

5.07 USE OF A CHECKLIST INITIAL STUDY.

When properly completed, the Environmental Checklist (Form "J") will meet the requirements of Local Guidelines Section 5.05 for an Initial Study provided that the entries on the checklist are explained. Either the Environmental Checklist (Form "J") should be expanded or a separate attachment should be prepared to describe the project, including its location, and to identify the environmental setting.

California courts have rejected the use of a bare, unsupported Environmental Checklist as an Initial Study. An Initial Study must contain more than mere conclusions. It must disclose supporting data or evidence upon which the Lead Agency relied in conducting the Initial Study. The Lead Agency must augment checklists with supporting factual data and reference information sources when completing the forms. Explanation of all "potential impact" answers should be provided on attached sheets. For controversial projects, it is advisable to state briefly why "no"

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answers were checked. If practicable, attach a list of reference materials, such as prior EIRs, plans, traffic studies, air quality data, or other supporting studies.

5.08 EVALUATING SIGNIFICANT ENVIRONMENTAL EFFECTS.

In evaluating the environmental significance of effects disclosed by the Initial Study, the Lead Agency shall consider:

(a) Whether the Initial Study and/or any comments received informally during consultations indicate that a fair argument can be made that the project may have a significant adverse environmental impact that cannot be mitigated to a level of insignificance. Even if a fair argument can be made to the contrary, an EIR should be prepared;

(b) Whether both primary (direct) and reasonably foreseeable secondary (indirect) consequences of the project were evaluated. Primary consequences are immediately related to the project, while secondary consequences are related more to the primary consequences than to the project itself. For example, secondary impacts upon the resources base, including land, air, water and energy use of an area, may result from population growth, a primary impact;

(c) Whether adverse social and economic changes will result from a physical change caused by the project. Adverse economic and social changes resulting from a project are not, in themselves, significant environmental effects. However, if such adverse changes cause physical changes in the environment, those consequences may be used as the basis for finding that the physical change is significant;

(d) Whether there is serious public controversy or disagreement among experts over the environmental effects of the project. However, the existence of public controversy or disagreement among experts does not, without more, require preparation of an EIR in the absence of substantial evidence of significant effects;

(e) Whether the cumulative impact of the project is significant and whether the incremental effects of the project are "cumulatively considerable" (as defined in Local Guidelines Section 11.13) when viewed in connection with the effects of past projects, current projects, and probable future projects. The District may conclude that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including, but not limited to, water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, plans or regulations for the reduction of greenhouse gas emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem. To be used for this purpose, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process. In relying on such a plan or program, the District should explain which requirements apply to the project and ensure that the project's incremental contribution is not cumulatively considerable; and

(f) Whether the project may cause a substantial adverse change in the significance of an archaeological or historical resource.

The District may use a threshold of significance (as that term is defined in State CEQA Guidelines section 15064.7) to determine whether a project may cause a significant environmental

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impact. When using a threshold of significance, the District should briefly explain how compliance with the threshold means that the project's impacts are less than significant. Compliance with the threshold, however, does not relieve the District of the obligation to consider substantial evidence indicating that a project's environmental effects may still be significant.

(Reference: State CEQA Guidelines, § 15064(b)(2).)

5.09 DETERMINING THE SIGNIFICANCE OF TRANSPORTATION IMPACTS

On or about December 28, 2018, the California Natural Resources Agency added a new section to the State CEQA Guidelines—Section 15064.3, entitled "Determining the Significance of Transportation Impacts." Section 15064.3 provides:

(a) Purpose.

This section describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.

(b) Criteria for Analyzing Transportation Impacts.

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other

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destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

(c) Applicability.

The provisions of this section shall apply prospectively as described in section 15007. A lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide.

(Reference: State CEQA Guidelines, § 15064.3.)

5.10 MANDATORY FINDINGS OF SIGNIFICANT EFFECT.

Whenever there is substantial evidence, in light of the whole record, that any of the conditions set forth below may occur, the Lead Agency shall find that the project may have a significant effect on the environment and thereby shall require preparation of an EIR:

(a) The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of major periods of California history or prehistory;
(b) The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals;
(c) The project has possible environmental effects which are individually limited but cumulatively considerable, as defined in Local Guidelines Section 11.13. That is, the District, when acting as Lead Agency, is required to determine whether the incremental impacts of a project are cumulatively considerable by evaluating them against the back-drop of the environmental effects of the other projects; or
(d) The environmental effects of a project will cause substantial adverse effects on humans either directly or indirectly.

If, before the release of the CEQA document for public review, the potential for triggering one of the mandatory findings of significance is avoided or mitigation measures or project modifications reduce the potentially significant impacts to a point where clearly the mandatory

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finding of significance is not triggered, preparation of an EIR is not mandated. If the project's potential for triggering one of the mandatory findings of significance cannot be avoided or mitigated to a point where the criterion is clearly not triggered, an EIR shall be prepared, and the relevant mandatory findings of significance shall be used:

(1) as thresholds of significance for purposes of preparing the EIR's impact analysis;

(2) in making findings on the feasibility of alternatives or mitigation measures;

(3) when found to be feasible, in making changes in the project to lessen or avoid the adverse environmental impacts; and

(4) when necessary, in adopting a statement of overriding considerations.

Although an EIR prepared for a project that triggers one of the mandatory findings of significance must use the relevant mandatory findings as thresholds of significance, the EIR need not conclude that the impact itself is significant. Rather, the District, as Lead Agency, must exercise its discretion and determine, on a case-by-case basis after evaluating all of the relevant evidence, whether the project's environmental impacts are avoided or mitigated below a level of significance or whether a statement of overriding considerations is required.

With regard to a project that has the potential to substantially reduce the number or restrict the range of a protected species, the District, as Lead Agency, does not have to prepare an EIR solely due to that impact, provided the project meets the following three criteria:

(a) The project proponent must be bound to implement mitigation requirements relating to such species and habitat pursuant to an approved habitat conservation plan and/or natural communities conservation plan;
(b) The state or federal agency must have approved the habitat conservation plan and/or natural community conservation plan in reliance on an EIR and/or EIS; and
(c) The mitigation requirements must either avoid any net loss of habitat and net reduction in number of the affected species, or preserve, restore, or enhance sufficient habitat to mitigate the reduction in habitat and number of the affected species below a level of significance.

(Reference: State CEQA Guidelines, § 15065.)

5.11 MANDATORY PREPARATION OF AN EIR FOR WASTE-BURNING PROJECTS.

Lead Agencies shall prepare or cause to be prepared and certify the completion of an EIR, or, if appropriate, an Addendum, Supplemental EIR, or Subsequent EIR, for any project involving the burning of municipal wastes, hazardous waste or refuse-derived fuel, including, but not limited to, tires, if the project consists of any of the following:

(a) The construction of a new facility;
(b) The expansion of an existing hazardous waste burning facility which would increase its permitted capacity by more than 10%;

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(c) The issuance of a hazardous waste facilities permit to a land disposal facility, as defined in Local Guidelines Section 11.32; or

(d) The issuance of a hazardous waste facilities permit to an offsite large treatment facility, as defined in Local Guidelines Sections 11.33 and 11.53.

This section does not apply to projects listed in subsections (c) and (d), immediately above, if the facility only manages hazardous waste that is identified or listed pursuant to Health and Safety Code section 25140 or 25141 or only conducts activities which are regulated pursuant to Health and Safety Code sections 25100, et seq.

The Lead Agency shall calculate the percentage of expansion for an existing facility by comparing the proposed facility's capacity with either of the following, as applicable:

(a) The facility capacity authorized in the facility's hazardous waste facilities permit pursuant to Health and Safety Code section 25200, or its grant of interim status pursuant to Health and Safety Code section 25200.5, or the facility capacity authorized in any state or local agency permit allowing the construction or operation of the facility for the burning of hazardous waste granted before January 1, 1990; or

(b) The facility capacity authorized in the facility's original hazardous facilities permit, grant of interim status, or any state or local agency permit allowing the construction or operation of a facility for the burning of hazardous waste, granted on or after January 1, 1990.

This section does not apply to any project over which the State Energy Resources Conservation and Development Commission has assumed jurisdiction per Health and Safety Code sections 25500 et seq.

The EIR requirement is also subject to a number of exceptions for specific types of waste-burning projects. (Public Resources Code section 21151.1 and State CEQA Guidelines section 15081.5.) Even if preparation of an EIR is not mandatory for a particular type of waste-burning project, those projects are not exempt from the other requirements of CEQA, the State CEQA Guidelines, or these Local Guidelines. In addition, waste-burning projects are subject to special notice requirements under Public Resources Code section 21092. Specifically, in addition to the standard public notices required by CEQA, notice must be provided to all owners and occupants of property located within one-fourth mile of any parcel or parcels on which the waste-burning project will be located. (Public Resources Code section 21092(c); see Local Guidelines Sections 6.12 and 7.27.)

5.12 DEVELOPMENT PURSUANT TO AN EXISTING COMMUNITY PLAN AND EIR.

Before preparing a CEQA document, Staff should determine whether the proposed project involves development consistent with an earlier zoning or community plan to accommodate a particular density for which an EIR has been certified. If an earlier EIR for the zoning or planning action has been certified, and if the proposed project concerns the approval of a subdivision map or development, CEQA applies only to the extent the project raises environmental effects peculiar to the parcel which were not addressed in the earlier EIR. Off-site and cumulative effects not discussed in the general plan EIR must still be considered. Mitigation measures set out in the earlier EIR should be implemented at this stage.

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Environmental effects shall not be considered peculiar to the parcel if uniformly applied development policies or standards have been previously adopted by a city or county with a finding based on substantial evidence that the policy or standard will substantially mitigate the environmental effect when applied to future projects. Examples of uniformly applied development policies or standards include, but are not limited to: parking ordinances; public access requirements; grading ordinances; hillside development ordinances; flood plain ordinances; habitat protection or conservation ordinances; view protection ordinances; and requirements for reducing greenhouse gas emissions as set forth in adopted land use plans, policies or regulations. Any rezoning action consistent with the Community Plan shall be subject to exemption from CEQA in accordance with this section. "Community Plan" means part of a city's general plan which: (1) applies to a defined geographic portion of the total area included in the general plan; (2) complies with Article 5 (commencing with Section 65300) of Chapter 3 of Division 1 of Title 7 of the Government Code by referencing each of the mandatory elements specified in Government Code section 65302; and (3) contains specific development policies adopted for the area in the Community Plan and identifies measures to implement those policies, so that the policies which will apply to each parcel can be determined.

(Reference: State CEQA Guidelines, § 15183.)

5.13 LAND USE POLICIES.

When a project will amend a general plan or another land use policy, the Initial Study must address how the change in policy and its expected direct and indirect effects will affect the environment. When the amendments constitute substantial changes in policies that result in a significant impact on the environment, an EIR may be required.

5.14 EVALUATING IMPACTS ON HISTORICAL RESOURCES.

Projects that may cause a substantial adverse change in the significance of a historical resource, as defined in Local Guidelines Section 11.28 are projects that may have a significant effect on the environment, thus requiring consideration under CEQA. Particular attention and care should be given when considering such projects, especially projects involving the demolition of a historical resource, since such demolitions have been determined to cause a significant effect on the environment.

Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation or alteration of the resource or its immediate surroundings, such that the significance of a historical resource would be materially impaired.

The significance of a historical resource is materially impaired when a project:

(a) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register of Historical Resources;
(b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources or its identification in a historical resources survey, unless the Lead Agency establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

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(c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by the Lead Agency for purposes of CEQA.

Generally, a project that follows either one of the following sets of standards and guidelines will be considered mitigated to a level of less than significant: (a) the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings; or (b) the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer.

In the event of an accidental discovery of a possible historical resource during construction of the project, the District may provide for the evaluation of the find by a qualified archaeologist or other professional. If the find is determined to be a historical resource, the District should take appropriate steps to implement appropriate avoidance or mitigation measures. Work on non-affected portions of the project, as determined by the District, may continue during the process. Curation may be an appropriate mitigation measure for an artifact that must be removed during project excavation or testing.

(Reference: State CEQA Guidelines, § 15064.5.)

5.15 EVALUATING IMPACTS ON ARCHAEOLOGICAL SITES.

When a project will impact an archaeological site, the District shall first determine whether the site is a historical resource, as defined in Local Guidelines Section 11.28 If the archaeological site is a historical resource, it shall be treated and evaluated as such, and not as an archaeological resource. If the archaeological site does not meet the definition of a historical resource, but does meet the definition of a unique archaeological resource set forth in Public Resources Code section 21083.2, the site shall be treated in accordance with said provisions of the Public Resources Code. The time and cost limitations described in Section 21083.2(c-f) do not apply to surveys and site evaluation activities intended to determine whether the project site contains unique archaeological resources.

If the archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

In the event of an accidental discovery of a possible unique archaeological resource during construction of the project, the District may provide for the evaluation of the find by a qualified archaeologist. If the find is determined to be a unique archaeological resource, the District should take appropriate steps to implement appropriate avoidance or mitigation measures. Work on non-affected portions of the project, as determined by the District, may continue during the process. Curation may be an appropriate mitigation measure for an artifact that must be removed during project excavation or testing.

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When an Initial Study identifies the existence of, or the probable likelihood of, Native American human remains within the Project, the District shall comply with the provisions of State CEQA Guidelines section 15064.5(d). In the event of an accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the District shall comply with the provisions of State CEQA Guidelines section 15064.5(e).

(Reference: State CEQA Guidelines, § 15064.5(c).)

5.16 CONSULTATION WITH WATER AGENCIES REGARDING LARGE DEVELOPMENT PROJECTS.

(a) Projects Subject to Consultation Requirements.

For certain development projects, cities and counties must consult with water agencies. If the District is a municipal water provider, the city or county may request that the District prepare a water supply assessment to be included in the relevant environmental documentation for the project. The District may refer to this section when preparing such an assessment or when reviewing projects in its role as a Responsible Agency. This section applies only to water demand projects as defined by Local Guidelines Section 11.85. Program level environmental review may not need to be as extensive as project level environmental review. (See Local Guidelines Sections 8.03 and 8.08.)

(b) Water Supply Assessment.

When a city or county as Lead Agency determines the type of environmental document that will be prepared for a water demand project or any project that includes a water demand project, the city or county must identify any public water system (as defined in Local Guidelines Sections 11.61 and 11.85) that may supply water for the project. The city or county must also request that the public water system determine whether the projected demand associated with the project was included in the most recently adopted Urban Water Management Plan. The city or county must also request that the public water system prepare a specified water supply assessment for approval at a regular or special meeting of the public water system governing body. A sample request for a water supply assessment is provided as Form "N" of these Local CEQA Guidelines.

If no public water system is identified that may supply water for the water demand project, the city or county shall prepare the water supply assessment. The city or county shall consult with any entity serving domestic water supplies whose service area includes the site of the water demand project, the local agency formation commission, and the governing body of any public water system adjacent to the site of the water demand project. The city council or county board of supervisors must approve the water assessment prepared pursuant to this paragraph at a regular or special meeting.

As per Water Code section 10910, the water assessment must include identification of existing water supply entitlements, water rights, or water service contracts relevant to the water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts, and further information is required if water supplies include groundwater. The water assessment must determine the ability of the public water system to meet existing and future demands along with the demands of the proposed water demand project in light of existing

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and future water supplies. This supply demand analysis is to be conducted via a twenty-year projection, and must assess water supply sufficiency during normal year, single dry year, and multiple dry year hydrology scenarios. If the public water agency concludes that the water supply is, or will be, insufficient, it must submit plans for acquiring additional water supplies.

The city or county may grant the public water agency a thirty (30) day extension of time to prepare the assessment if the public water agency requests an extension within ninety (90) days of being asked to prepare the assessment. If the governing body of the public water system fails to request and receive an extension of time, or fails to submit the water assessment notwithstanding the thirty (30) day extension, the city or county may seek a writ of mandamus to compel the governing body of the public water system to comply.

If a water-demand project has been the subject of a water assessment, no additional water assessment shall be required for subsequent water-demand projects that were included in the larger water-demand project if all of the following criteria are met:

(1) The entity completing the water assessment concluded that its water supplies are sufficient to meet the projected water demand associated with the larger water-demand project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses; and

(2) None of the following changes has occurred since the completion of the water assessment for the larger water-demand project:

(A) Changes in the larger water-demand project that result in a substantial increase in water demand for the water-demand project;

(B) Changes in the circumstances or conditions substantially affecting the ability of the public water system identified in the water assessment to provide a sufficient supply of water for the water demand project; and

(C) Significant new information becomes available which was not known and could not have been known at the time when the entity had reached its assessment conclusions.

(3) The city or county shall include the water assessment, and any water acquisition plan in the EIR, negative declaration, or mitigated negative declaration, or any supplement thereto, prepared for the project, and may include an evaluation of the water assessment and water acquisition plan information within such environmental document. A discussion of water supply availability should be included in the main text of the environmental document. Normally, this discussion should be based on the data and information included in the water supply assessment. In making its required findings under CEQA, the city or county shall determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses. If a city or county determines that water supplies will not be sufficient, the city or county shall include that determination in its findings for the project.

The degree of certainty regarding the availability of water supplies will vary depending on the stage of project approval. A Lead Agency should have greater confidence in the availability of water supplies for a specific project than might be required for a conceptual plan (i.e. general plan, specific plan). An analysis of water supply in an environmental document may incorporate by reference information in a water supply assessment, urban water management plan, or other publicly available sources. The analysis shall include the following:

(1) Sufficient information regarding the project's proposed water demand and proposed water supplies to permit the Lead Agency to evaluate the pros and cons of supplying the amount of water that the project will need.

(2) An analysis of the reasonably foreseeable environmental impacts of supplying water throughout all phases of the project.

(3) An analysis of circumstances affecting the likelihood of the water's availability, as well as the degree of uncertainty involved. Relevant factors may include but are not limited to, drought, salt-water intrusion, regulatory or contractual curtailments, and other reasonably foreseeable demands on the water supply.

(4) If the Lead Agency cannot determine that a particular water supply will be available, it shall conduct an analysis of alternative sources, including at least in general terms the environmental consequences of using those alternative sources, or alternatives to the project that could be served with available water.

For complete information on these requirements, consult Water Code sections 10910, et seq. For other CEQA provisions applicable to these types of projects, see Local Guidelines Sections 7.03 and 7.25.

5.17 SUBDIVISIONS WITH MORE THAN 500 DWELLING UNITS.

Cities and counties must obtain written verification (see Form "O" for a sample) from the applicable public water system(s) that a sufficient water supply is available before approving certain residential development projects. If the District is a municipal water provider for a project, the city or county may request such a verification from the District. The District should also be aware of these requirements when reviewing projects in its role as a Responsible Agency.

Cities and counties are prohibited from approving a tentative map, parcel map for which a tentative map was not required, or a development agreement for a subdivision of property of more than 500 dwellings units, unless:

(1) The City Council, Board of Supervisors, or the advisory agency receives written verification from the applicable public water system that a sufficient water supply is available; or

(2) Under certain circumstances, the City Council, Board of Supervisors or the advisory agency makes a specified finding that sufficient water supplies are, or will be, available prior to completion of the project.

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For complete information on these requirements, consult Government Code section 66473.7.

5.18 IMPACTS TO OAK WOODLANDS.

When a county prepares an Initial Study to determine what type of environmental document will be prepared for a project within its jurisdiction, the county must determine whether the project may result in a conversion of oak woodlands that will have a significant effect on the environment. Normally, this rule will not apply to projects undertaken by the District. However, if the District is a Responsible Agency on such a project, the District should endeavor to ensure that the county, as Lead Agency, analyzes these impacts in accordance with CEQA.

(Reference: Pub. Resources Code, § 21083.4.)

5.19 CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS.

A. Estimating or Calculating the Magnitude of the Project's Greenhouse Gas Emissions.

The District shall analyze the greenhouse gas emissions of its projects as required by State CEQA Guidelines section 15064.4. For projects subject to CEQA, the District shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project.

In performing analysis of greenhouse gas emissions, the District, as Lead Agency, shall have discretion to determine, in the context of a particular project, whether to:

(1) Quantify greenhouse gas emissions resulting from a project; and/ or

(2) Rely on a qualitative analysis or performance-based standards.

B. Factors in Determining Significance.

In determining the significance of a project's greenhouse gas emissions, the District, when acting as Lead Agency, should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national, or global emissions. The District's analysis should consider a timeframe that is appropriate for the project. The District's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes.

Once the amount of a project's greenhouse gas emissions have been described, estimated, or calculated, the District should consider the following factors, among others, to determine whether those emissions are significant:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting. Physical environmental conditions in the vicinity of the project, as they exist at the time the Notice of

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Preparation is published or the time when the environmental analysis is commenced, will normally constitute the baseline. All project phases, including construction and operation, should be considered in determining whether a project will cause emissions to increase or decrease as compared to the baseline;

(2) Whether the project emissions exceed a threshold of significance that the Lead Agency determines applies to the project. The Lead Agency may rely on thresholds of significance developed by experts or other agencies, provided that application of the threshold and the significance conclusion is supported with substantial evidence. When relying on thresholds developed by other agencies, the Lead Agency should ensure that the threshold is appropriate for the project and the project's location; and

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., State CEQA Guidelines section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the Lead Agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

The Lead Agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The Lead Agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The Lead Agency must support its selection of a model or methodology with substantial evidence. The Lead Agency should explain the limitations of the particular model or methodology selected for use.

C. Consistency with Applicable Plans.

When an EIR is prepared, it must discuss any inconsistencies between the proposed project and any applicable general plan, specific plans, and regional plans. This includes, but is not limited to, any applicable air quality attainment plans, regional blueprint plans, or plans for the reduction of greenhouse gas emissions.

D. Mitigation Measures Related to Greenhouse Gas Emissions.

Lead Agencies must consider feasible means of mitigating the significant effects of greenhouse gas emissions. Any such mitigation measure must be supported by substantial

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evidence and be subject to monitoring or reporting. Potential mitigation will depend on the particular circumstances of the project, but may include the following, among others:

(1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the Lead Agency's decision;

(2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in State CEQA Guidelines Appendix F;

(3) Off-site measures, including offsets that are not otherwise required, to mitigate a project's emissions;

(4) Measures that sequester greenhouse gases; and

(5) In the case of the adoption of a plan, such as a general plan, long range development plan, or plan for the reduction of greenhouse gas emissions, mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions.

E. Streamlined Analysis of Greenhouse Gas Emissions.

Under certain limited circumstances, the legislature has specifically declared that the analysis of greenhouse gas emissions or climate change impacts may be limited. Public Resources Code sections 21155, 21155.2, and 21159.28 provide that if certain residential, mixed use and transit priority projects meet specified ratios and densities, then the lead agencies for those projects may conduct a limited review of greenhouse gas emissions or may be exempted from analyzing global warming impacts that result from cars and light duty trucks, if a detailed list of requirements is met. However, unless the project is exempt from CEQA, the Lead Agency must consider whether such projects will result in greenhouse gas emissions from other sources, including, but not limited to, energy use, water use, and solid waste disposal.

F. Tiering.

The District may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level. Later project-specific environmental documents may then tier from and/or incorporate by reference that existing programmatic review.

G. Plans for the Reduction of Greenhouse Gas Emissions.

Public agencies may choose to analyze and mitigate greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or in a similar document. A plan for the reduction of greenhouse gas emissions should:

(1) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;

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(2) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;

(3) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;

(4) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;

(5) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; and

(6) Be adopted in a public process following environmental review.

A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR, or adoption of another environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a plan for the reduction of greenhouse gas emissions for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for reduction of greenhouse gas emissions, an EIR must be prepared for the project.

H. Analyzing the Effects of Climate Change on the Project.

Where an EIR is prepared for a project, the EIR shall analyze any significant environmental effects the project might cause by bringing development and people into the project area that may be affected by climate change. In particular, the EIR should evaluate any potentially significant impacts of locating development in areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas. The analysis may be limited to the potentially significant effects of locating the project in a potentially hazardous location. Further, this analysis may be limited by the project's life in relation to the potential of such effects to occur and the availability of existing information related to potential future effects of climate change. Further, the EIR need not include speculation regarding such future effects.

5.20 ENERGY CONSERVATION.

Potentially significant energy implications of a project must be considered in an EIR to the extent relevant and applicable to the project. Therefore, the project description should identify the following as applicable or relevant to the particular project:

(1) Energy consuming equipment and processes which will be used during construction, operation and/or removal of the project. If appropriate, this

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discussion should consider the energy intensiveness of materials and equipment required for the project;

(2) Total energy requirements of the project by fuel type and end use;

(3) Energy conservation equipment and design features;

(4) Identification of energy supplies that would serve the project; and

(5) Total estimated daily vehicle trips to be generated by the project and the additional energy consumed per trip by mode.

As described in Local Guidelines Section 5.06, above, an initial study must include a description of the environmental setting. The discussion of the environmental setting may include existing energy supplies and energy use patterns in the region and locality. The District may also consider the extent to which energy supplies have been adequately considered in other environmental documents. Environmental impacts may include:

(1) The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed;

(2) The effects of the project on local and regional energy supplies and on requirements for additional capacity;

(3) The effects of the project on peak and base period demands for electricity and other forms of energy;

(4) The degree to which the project complies with existing energy standards;

(5) The effects of the project on energy resources; and/or

(6) The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

As discussed above in Section 5.06, the Initial Study must identify the potential environmental effects of the proposed activity. That discussion must include the unavoidable adverse effects. Unavoidable adverse effects may include wasteful, inefficient and unnecessary consumption of energy during the project construction, operation, maintenance and/or removal that cannot be feasibly mitigated.

When discussing energy conservation, alternatives should be compared in terms of overall energy consumption and in terms of reducing wasteful, inefficient and unnecessary consumption of energy.

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5.21 ENVIRONMENTAL IMPACT ASSESSMENT.

The Initial Study identifies which environmental impacts may be significant. Based upon the Initial Study, Staff shall determine whether a proposed project may or will have a significant effect on the environment. Such determination shall be made in writing on the Environmental Impact Assessment Form (Form "C"). If Staff finds that a project will not have a significant effect on the environment, it shall recommend that a Negative Declaration be prepared and adopted by the decision-making body. If Staff finds that a project may have a significant effect on the environment, but the effects can be mitigated to a level of insignificance, it shall recommend that a Mitigated Negative Declaration be prepared and adopted by the decision-making body. If Staff finds that a project may have a significant effect on the environment, it shall recommend that an EIR be prepared and certified by the decision-making body.

5.22 FINAL DETERMINATION.

The Board of Directors shall have the final responsibility for determining whether an EIR, Negative Declaration or Mitigated Negative Declaration shall be required for any project. The Board of Directors' determination shall be final and conclusive on all persons, including Responsible Agencies and Trustee Agencies, except as provided in Section 15050(c) of the State CEQA Guidelines. Additionally, in the event the Board of Directors has delegated authority to a subsidiary board or official to approve a project, the Board of Directors also hereby delegates to that subsidiary board or official the authority to make all necessary CEQA determinations, including whether an EIR, Negative Declaration, Mitigated Negative Declaration or exemption shall be required for any project. A subsidiary board or official's CEQA determination shall be subject to appeal consistent with the District's established procedures for appeals.

(Reference: Pub. Resources Code, § 21151.)

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6. NEGATIVE DECLARATION

6.01 DECISION TO PREPARE A NEGATIVE DECLARATION.

A Negative Declaration (Form "E") shall be prepared for a project subject to CEQA when the Initial Study shows that there is no substantial evidence in light of the whole record that the project may have a significant or potentially significant adverse effect on the environment. (See Local Guidelines Sections 11.65 and 11.71.)

(Reference: State CEQA Guidelines, § 15070(a).)

6.02 DECISION TO PREPARE A MITIGATED NEGATIVE DECLARATION.

A Mitigated Negative Declaration (Form "E") shall be prepared for a project subject to CEQA when the Initial Study identifies potentially significant effects on the environment, but:

(a) The project applicant has agreed to revise the project or the District can revise the project to avoid these significant effects or to mitigate the effects to a point where it is clear that no significant effects would occur; or
(b) There is no substantial evidence in light of the whole record before the District that the revised project may have a significant effect.

It is insufficient to require an applicant to adopt mitigation measures after final adoption of the Mitigated Negative Declaration or to state that mitigation measures will be recommended on the basis of a future study. The District must know the measures at the time the Mitigated Negative Declaration is adopted in order for them to be evaluated and accepted as adequate mitigation. Evidence of agreement by the applicant to such mitigation should be in the record prior to public review. Except where noted, the procedural requirements for the preparation and approval of a Negative Declaration and Mitigated Negative Declaration are the same.

(Reference: State CEQA Guidelines, § 15070(b).)

6.03 CONTRACTING FOR PREPARATION OF NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION.

The District, when acting as Lead Agency, is responsible for preparing all documents required pursuant to CEQA. The documents may be prepared by Staff or by private consultants pursuant to a contract with the District, but they must be the District's product and reflect the independent judgment of the District.

6.04 NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION.

When, based upon the Initial Study, it is recommended to the decision-making body that a Negative Declaration or Mitigated Negative Declaration be adopted, a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (Form "D") shall be prepared. In addition to being provided to the public through the means set forth in Local Guidelines Section 6.07, this Notice shall also be provided to:

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(a) Each Responsible and Trustee Agency;
(b) Any other federal, state, or local agency that has jurisdiction by law or exercises authority over resources affected by the project, including:

(1) Any water supply agency consulted under Local Guidelines Section 5.16;

(2) Any city or county bordering on the project area;

(3) For a project of statewide, regional, or area-wide significance, to any transportation agencies or public agencies which have major local arterials or public transit facilities within five (5) miles of the project site or freeways, highways, or rail transit service within ten (10) miles of the project site which could be affected by the project; and

(4) For a subdivision project located within one mile of a facility of the State Water Resources Development System, to the California Department of Water Resources;

(c) The last known name and address of all organizations and individuals who have previously filed a written request with the District to receive these Notices;
(d) For certain projects that may impact a low-level flight path, military impact zone, or special use airspace and that meet the other criteria of Local Guidelines Section 6.05, to the specified military services contact;
(e) For certain projects that involve the construction or alteration of a facility anticipated to include hazardous air emissions or handle hazardous substances within one-quarter mile of a school and that meet the other requirements of Local Guidelines Section 6.06, to any potentially affected school district;
(f) For certain waste-burning projects that meet the requirements of Local Guidelines Section 5.11 (regarding mandatory preparation of EIR) (see also Local Guidelines Section 7.27), to the owners and occupants of property within one-fourth mile of any parcel on which the project will be located; and
(g) For a project that establishes or amends a redevelopment plan that contains land in agricultural use, notice shall be provided to the agricultural and farm agencies and organizations specified in Health and Safety Code section 33333.3.

The Notice of Intent must also be posted to the Lead Agency's website, if any. (Pub. Resources Code, § 21092.2(d).) Additionally, for a project of statewide, regional, or area-wide significance, the Lead Agency should also consult with public transit agencies with facilities within one-half mile of the proposed project.

A copy of the proposed Negative Declaration or Mitigated Negative Declaration and the Initial Study shall be attached to the Notice of Intent to Adopt that is sent to every Responsible Agency and Trustee Agency concerned with the project and every other public agency with jurisdiction by law over resources affected by the project.

The public review period for a Negative Declaration or Mitigated Negative Declaration shall not be less than twenty (20) days; the public review period shall be at least thirty (30) days where the Negative Declaration or Mitigated Negative Declaration is for a proposed project where

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(1) a state agency is the lead agency, a responsible agency, or a trustee agency; (2) a state agency otherwise has jurisdiction by law with respect to the project; or (3) the proposed project is of sufficient statewide, regional, or area-wide significance as determined pursuant to State CEQA Guidelines section 15206. The Lead Agency shall give notice of the public review period by filing and posting a Notice of Intent to Adopt a Negative Declaration (Form "D") with the County Clerk before commencement of the public review period; where a public review period of at least 30 days is required, the Lead Agency shall also electronically submit the Notice of Intent to the State Clearinghouse. (Pub. Resources Code, § 21091.)

For purposes of calculating the length of the public review period, the last day of the public review period cannot fall on a weekend, a legal holiday, or other day on which the lead agency's offices are closed.[1] (Reference: *Rominger v. County of Colusa* (2014) 229 Cal.App.4th 690, 708.)

The District requires requests for notices to be in writing and to be renewed annually. If the District is not otherwise required by CEQA or another regulation to provide notice, the District may charge a fee for providing notices to individuals or organizations that have submitted written requests to receive such notices, unless the request is made by another public agency.

If the Negative Declaration or Mitigated Negative Declaration has been submitted to the State Clearinghouse for review by state agencies, the public review period shall be at least as long as the period of review and comment by state agencies. (See Local Guidelines Section 6.10.) Day one of the state agency review period shall be the date that the State Clearinghouse distributes the Negative Declaration or Mitigated Negative Declaration to state agencies.

The Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration shall contain the following information:

(a) The period during which comments shall be received;
(b) The date, time and place of any public meetings or hearings on the proposed project;
(c) A brief description of the proposed project and its location;
(d) The address where copies of the proposed Negative Declaration or Mitigated Negative Declaration and all documents incorporated by reference in the proposed Negative Declaration or Mitigated Negative Declaration are available for review;
(e) A description of how the proposed Negative Declaration or Mitigated Negative Declaration can be obtained in electronic format;
(f) The Environmental Protection Agency ("EPA") list on which the proposed project site is located, if applicable, and the corresponding information from the applicant's statement (see Local Guidelines Section 2.05); and
(g) The significant effects on the environment, if any, anticipated as a result of the proposed project.

[1] A public agency's "offices are closed" for purposes of this section on days in which the agency is formally closed for business (for example, due to a weekend, a legal holiday, or a formal furlough affecting the entire office). A public agency's office is not considered closed for purposes of this section where the agency's office may be physically closed, but the agency is nonetheless open for business and is operating remotely or virtually (for example, in response to the Covid-19 pandemic).

(Reference: Pub. Resources Code, §§ 21082.1, 21091, 21161; State CEQA Guidelines, §§ 15072, 15105, 15205.)

6.05 PROJECTS AFFECTING MILITARY SERVICES; DEPARTMENT OF DEFENSE NOTIFICATION.

CEQA imposes additional requirements to provide notice to potentially affected military agencies when:

(a) The project meets one of the following three criteria:

(1) The project includes a general plan amendment;

(2) The project is of statewide, regional, or area-wide significance; or

(3) The project relates to a public use airport or certain lands surrounding a public use airport; and

(b) A "military service" (defined in Section 11.44 of these Local Guidelines) has provided its contact office and address and notified the Lead Agency of the specific boundaries of a "low-level flight path" (defined in Section 11.38 of these Local Guidelines), "military impact zone" (defined in Section 11.43 of these Local Guidelines), or "special use airspace" (defined in Section 11.69 of these Local Guidelines).

When a project meets these requirements, the District must provide the military service's designated contact with a copy of the Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration that has been prepared for the project, unless the project involves the remediation of lands contaminated with hazardous wastes and meets certain other requirements. (Reference: Pub. Resources Code, §§ 21080.4 and 21092; Health & Safety Code, §§ 25300, et seq., 25396, and 25187.)

The District must provide the military service with sufficient notice of its intent to adopt a Negative Declaration or Mitigated Negative Declaration to ensure that the military service has no fewer than twenty (20) days to review the documents before they are approved, provided that the military service shall have a minimum of thirty (30) days to review the environmental documents if the documents have been submitted to the State Clearinghouse.

(Reference: State CEQA Guidelines, §§ 15105(b), 15190.5(c).)

6.06 SPECIAL FINDINGS REQUIRED FOR FACILITIES THAT MAY EMIT HAZARDOUS AIR EMISSIONS NEAR SCHOOLS.

Special procedural rules apply to projects involving the construction or alteration of a facility within one-quarter mile of a school/schools when: (1) the facility might reasonably be anticipated to emit hazardous air emissions or to handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the threshold specified in Health and Safety Code section 25532(j), and (2) the emissions or substances may pose a health or safety hazard to persons who would attend or would be employed at the

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school. If the project meets both of those criteria, a Lead Agency may not approve a Negative Declaration or a Mitigated Negative Declaration unless both of the following have occurred:

(a) The Lead Agency consulted with the affected school district or districts having jurisdiction over the school regarding the potential impact of the project on the school; and
(b) The school district(s) was given written notification of the project not less than thirty (30) days prior to the proposed approval of the Negative Declaration.

When the District is considering the adoption of a Negative Declaration or Mitigated Negative Declaration for a project that meets these criteria, it can satisfy this requirement by providing the Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration, the proposed Negative Declaration or Mitigated Negative Declaration, and the Initial Study to the potentially affected school district at least thirty (30) days before the decision-making body will consider the adoption of the Negative Declaration or Mitigated Negative Declaration. See also Local Guidelines Section 6.04.

Implementation of this Guideline shall be consistent with the definitions and terms utilized in State CEQA Guidelines section 15186.

6.07 CONSULTATION WITH CALIFORNIA NATIVE AMERICAN TRIBES.

Prior to the release of a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration for a project, the Lead Agency shall begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if:

(a) The California Native American tribe requested to the Lead Agency, in writing, to be informed by the Lead Agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe; and

(b) The California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. The California Native American tribe shall designate a lead contact person when responding to the Lead Agency. If a lead contact is not designated by the California Native American tribe, or it designates multiple lead contact people, the Lead Agency shall defer to the individuals listed on the contact list maintained by the Native American Heritage Commission. Consultation is defined in Local Guidelines Section 11.11.

To expedite the requirements of this section, the Native American Heritage Commission shall assist the Lead Agency in identifying the California American Native tribes that are traditionally and culturally affiliated with the project area.

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the Lead Agency shall provide formal notification to the designated contact of, or a trial representative of, traditionally and culturally affiliated California Native America tribes that have requested notice, which shall be accomplished by at least one written notification that includes a brief description of the proposed project and its location, the Lead Agency contact information, and a notification that the California Native

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American tribe has 30 days to request consultation. Where the application for a housing development project is deemed to be complete on or after March 4, 2020 and before December 31, 2021, the California Native American tribe shall have 60 days to respond to the Lead Agency and request consultation. (Reference: Gov. Code, § 65583(i).)

The Lead Agency shall begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation.

If consultation is requested, the parties may propose mitigation measures, including those set forth in Public Resources Code section 21084.3, capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource. The consultation may include discussion concerning the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and, if necessary, project alternatives or the appropriate measures for preservation or mitigation that the California Native American tribe may recommend to the Lead Agency.

The consultation shall be considered concluded when either of the following occurs:

(1) The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource.

(2) A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

The California Native American tribe is not limited in its ability to submit information to the lead agency regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any appropriate measures to mitigate the impacts. Additionally, the lead agency or project proponent is not limited in its ability to incorporate changes and additions to the project as a result of the consultation, even if not legally required.

(Reference: Pub. Resources Code, §§ 21080.3.1, 21080.3.2.)

6.08 IDENTIFICATION OF TRIBAL CULTURAL RESOURCES AND PROCESSING OF INFORMATION AFTER CONSULTATION WITH THE CALIFORNIA NATIVE AMERICAN TRIBE

After consultation with the California Native American tribe listed above in Local Guidelines Section 6.07, any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the Mitigated Negative Declaration and in an adopted mitigation monitoring and reporting program, if the mitigation measures are determined to avoid or lessen the proposed project's impacts on tribal cultural resources, and if the mitigation measures are enforceable.

If a project may have a significant impact on a tribal cultural resource, the Lead Agency's Mitigated Negative Declaration shall discuss both of the following:

(a) Whether the proposed project has a significant impact on an identified tribal cultural resource;

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(b) Whether feasible alternatives or mitigation measures, including those measures that may be agreed to during the consultation, avoid or substantially lessen the impact on the identified tribal cultural resource.

Any information provided regarding the location, description and use of the tribal cultural resource that is submitted by a California Native American tribe during the environmental review process shall not be included in the Negative Declaration or Mitigated Negative Declaration or otherwise disclosed by the Lead Agency or any other public agency to the public, consistent with Government Code section 7927.005, and State CEQA Guidelines section 15120(d), without the prior consent of the tribe that provided the information. If the Lead Agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the Negative Declaration or Mitigated Negative Declaration unless the tribe provides consent, in writing, to the disclosure of some or all of the information to the public. This does not prohibit the confidential exchange of the submitted information between public agencies that have lawful jurisdiction over the preparation of the Negative Declaration or the Mitigated Negative Declaration.

The exchange of confidential information regarding tribal cultural resources submitted by a California Native American tribe during the consultation or environmental review process among the Lead Agency, the California Native American tribe, the project applicant, or the project applicant's agent is not prohibited by Public Resources Code section 21082.3. The project applicant and the project applicant's legal advisers must use a reasonable degree of care and maintain the confidentiality of the information exchanged for the purposes of preventing looting, vandalism, or damage to tribal cultural resources and shall not disclose to a third party confidential information regarding the cultural resource unless the California Native American tribe providing the information consents in writing to the public disclosure of such information.

Public Resources Code section 21082.3 does not prevent a Lead Agency or other public agency from describing the information in general terms in the Negative Declaration or Mitigated Negative Declaration so as to inform the public of the basis of the Lead Agency's or other public agency's decision without breaching the confidentiality required. In addition, a Lead Agency may adopt a Mitigated Negative Declaration for a project with a significant impact on an identified tribal cultural resource only if one of the following occurs:

(a) The consultation process between the California Native American tribe and the Lead Agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to subdivision (b) of Section 21080.3.2.

(b) The California Native American tribe has requested consultation pursuant to Public Resources Code section 21080.3.1 and has failed to provide comments to the Lead agency, or otherwise failed to engage, in the consultation process.

(c) The Lead Agency has complied with subdivision (d) of Section 21080.3.1 of the Public Resources Code and the California Native American tribe has failed to request consultation within 30 days.

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If substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource but the decision-makers do not include the mitigation measures recommended by the staff in the Mitigated Negative Declaration, or if there are no agreed upon mitigation measures at the conclusion of the consultation; or if no consultation has occurred, the Lead Agency must still consider the adoption of feasible mitigation.

(Reference: Pub. Resources Code, § 21082.3.)

6.09 SIGNIFICANT ADVERSE IMPACTS TO TRIBAL CULTURAL RESOURCES

Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. If the Lead Agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided in Public Resources Code section 21080.3.2 and as set forth in Local Guidelines Section 6.07, the following examples of mitigation measures, if feasible, may be considered to avoid or minimize the significant adverse impacts:

(a) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

(b) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

(1) Protecting the cultural character and integrity of the resource.

(2) Protecting the traditional use of the resource.

(3) Protecting the confidentiality of the resource.

(c) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

(d) Protecting the resource.

(Reference: Pub. Resources Code, § 21084.3.)

6.10 POSTING AND PUBLICATION OF NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION.

The District shall have a copy of the Notice of Intent to Adopt, the Negative Declaration or Mitigated Negative Declaration, and the Initial Study posted at the District's offices and on the District's website, if any, and shall make these documents available for public inspection. The Notice must be provided either twenty (20) or thirty (30) days prior to final adoption of the Negative Declaration or Mitigated Negative Declaration. The public review period for a Negative

Declaration or Mitigated Negative Declaration prepared for a project subject to state agency review, as set forth in Local Guidelines Section 6.11, must be circulated for at least as long as the review period established by the State Clearinghouse, usually no less than thirty (30) days. Under certain circumstances, a shortened review period of at least twenty (20) days may be approved by the State Clearinghouse as provided for in State CEQA Guidelines section 15105. See the Shortened Review Request Form "P." The state review period will commence on the date the State Clearinghouse distributes the document to state agencies. The State Clearinghouse will distribute the document within three (3) days of receipt if the Negative Declaration or Mitigated Negative Declaration is deemed complete.

The Notice must also be posted in the office of the Clerk in each county in which the project is located and must remain posted throughout the public review period. The County Clerk is required to post the Notice within twenty-four (24) hours of receiving it.

Notice shall be provided as stated in Local Guidelines Section 6.04. In addition, Notice of the Intent to Adopt shall be given to the last known name and address of all organizations and individuals who have previously requested notice; by posting the notice on the website of the lead agency; and by at least one of the following procedures:

(a) Publication at least once in a newspaper of general circulation in the area affected by the proposed project. If more than one area will be affected, the notice shall be published in the newspaper of largest circulation from among the newspapers of general circulation in those areas;
(b) Posting of notice on and off site in the area where the project is to be located; or
(c) Direct mailing to owners and occupants of property contiguous to the project, as shown on the latest equalized assessment roll.

The District, when acting as Lead Agency, shall consider all comments received during the public review period for the Negative Declaration or Mitigated Negative Declaration. For a Negative Declaration or Mitigated Negative Declaration, the District is not required to respond in writing to comments it receives either during or after the public review period. However, the District may provide a written response to all comments if it will not delay action on the Negative Declaration or Mitigated Negative Declaration, since any comment received prior to final action on the Negative Declaration or Mitigated Negative Declaration can form the basis of a legal challenge. A written response that refutes the comment or adequately explains the District's action in light of the comment will assist the District in defending against a legal challenge. The District shall notify any public agency that comments on a Negative Declaration or Mitigated Negative Declaration of the public hearing or hearings, if any, on the project for which the Negative Declaration or Mitigated Negative Declaration was prepared.

(Reference: Pub. Resources Code, § 21092; State CEQA Guidelines, §§ 15072-15073.)

6.11 SUBMISSION OF NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION TO STATE CLEARINGHOUSE.

A Negative Declaration or Mitigated Negative Declaration must be submitted to the State Clearinghouse, in an electronic form as required by the Office of Land Use and Climate Innovation

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("LCI"), regardless of whether the document must be circulated for review and comment by state agencies under State CEQA Guidelines section 15205 and 15206. The Negative Declaration or Mitigated Negative Declaration must be submitted via LCI's CEQA Submit website (https://ceqasubmit.lci.ca.gov/). The CEQA Submit website differentiates between environmental documents that do require review and comment by state agencies and those that do not. In particular, the website provides a "Local Review Period" tab for submitting documents that do not require review and comment by state agencies, and a "State Review Period" tab for submitting documents that do require review and comment by state agencies.

A Negative Declaration or Mitigated Negative Declaration must be submitted to the State Clearinghouse for review and comment by state agencies (i.e., a Negative Declaration or Mitigated Negative Declaration must be submitted through the CEQA Submit website under the "State Review Period" tab) in the following situations:

(a) The Negative Declaration or Mitigated Negative Declaration is prepared by a Lead Agency that is a state agency;
(b) The Negative Declaration or Mitigated Negative Declaration is prepared by a public agency where a state agency is a Responsible Agency, Trustee Agency, or otherwise has jurisdiction by law with respect to the project; or
(c) The Negative Declaration or Mitigated Negative Declaration is for a project identified in State CEQA Guidelines section 15206 as being of statewide, regional, or area-wide significance.

State CEQA Guidelines section 15206 identifies the following types of projects as being examples of projects of statewide, regional, or area-wide significance that require submission to the State Clearinghouse for circulation:

(1) Projects that have the potential to cause significant environmental effects beyond the city or county where the project would be located, such as:

    (a) Residential development of more than 500 units;
    (b) Commercial projects employing more than 1,000 persons or covering more than 500,000 square feet of floor space;
    (c) Office building projects employing more than 1,000 persons or covering more than 250,000 square feet of floor space;
    (d) Hotel or motel development of more than 500 rooms; or
    (e) Industrial projects housing more than 1,000 persons, occupying more than 40 acres of land, or covering more than 650,000 square feet of floor area;

(2) Projects for the cancellation of a Williamson Act contract covering 100 or more acres;

(3) Projects in one of the following Environmentally Sensitive Areas:

    (a) Lake Tahoe Basin;
    (b) Santa Monica Mountains Zone;
    (c) Sacramento-San Joaquin River Delta;
    (d) Suisun Marsh;

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(e) Coastal Zone, as defined by the California Coastal Act;
(f) Areas within one-quarter mile of a river designated as wild and scenic; or
(g) Areas within the jurisdiction of the San Francisco Bay Conservation and Development Commission;

(4) Projects that would affect sensitive wildlife habitats or the habitats of any rare, threatened, or endangered species;

(5) Projects that would interfere with water quality standards; and

(6) Projects that would provide housing, jobs, or occupancy for 500 or more people within 10 miles of a nuclear power plant.

A Negative Declaration or Mitigated Negative Declaration may also be submitted to the State Clearinghouse for circulation if a state agency has special expertise with regard to the environmental impacts involved.

The public review period for a Negative Declaration or a Mitigated Negative Declaration shall not be less than twenty (20) days. The review period, however, shall be at least thirty (30) days if the Negative Declaration or Mitigated Negative Declaration is for a proposed project where a state agency is the lead agency, a responsible agency, or a trustee agency; a state agency otherwise has jurisdiction by law with respect to the project; or the proposed project is of sufficient statewide, regional, or areawide significance as determined pursuant to the guidelines certified and adopted pursuant to State CEQA Guidelines section 15206. When the Negative Declaration or Mitigated Negative Declaration is submitted to the State Clearinghouse for state agency review, the review period begins (day one) on the date that the State Clearinghouse distributes the Negative Declaration or Mitigated Negative Declaration to state agencies. The State Clearinghouse is required to distribute the Negative Declaration or Mitigated Negative Declaration to state agencies within three (3) working days from the date the State Clearinghouse receives the document, as long as the Negative Declaration or Mitigated Negative Declaration is complete when submitted to the State Clearinghouse. If the document submitted to the State Clearinghouse is not complete, the State Clearinghouse must notify the Lead Agency. The review period for the public and all other agencies may run concurrently with the state agency review period established by the State Clearinghouse, but the public review period cannot conclude before the state agency review period does. The review period for the public shall be at least as long as the review period established by the State Clearinghouse.

A shorter review period by the State Clearinghouse for a Negative Declaration or Mitigated Negative Declaration can be requested by the decision-making body. The shortened review period shall not be less than twenty (20) days. Such a request must be made in writing by the Lead Agency to LCI. The decision-making body may designate by resolution or ordinance an individual authorized to request a shorter review period. (See Form "P"). Any approval of a shortened review period must be given prior to, and reflected in, the public notice. However, a shortened review period shall not be approved by LCI for any proposed project of statewide, regional or areawide environmental significance, as defined by State CEQA Guidelines section 15206.

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When the Lead Agency completes its Negative Declaration or Mitigated Negative Declaration for a proposed project, the Lead Agency must also cause a Notice of Completion (Form "H") to be filed with the Office of Land Use and Climate Innovation via its CEQA Submit website. The Notice of Completion should briefly identify the project, indicate that an environmental document has been prepared for the project, and identify the project location by latitude and longitude.

The Lead Agency must post the Notice of Intent, Notice of Completion, and Negative Declaration or Mitigated Negative Declaration on its website, if any.

(Reference: Pub. Resources Code, §§ 21082.1, 21161; State CEQA Guidelines, §§ 15205, 15206.)

6.12 SPECIAL NOTICE REQUIREMENTS FOR WASTE- AND FUEL-BURNING PROJECTS.

For any project that involves the burning of municipal waste, hazardous waste, or refuse-derived fuel (such as tires) and that does not require an EIR, as defined in Local Guidelines Section 5.11, a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration shall be given to all organizations and individuals who have previously requested it and shall also be given by all three of the procedures listed in Local Guidelines Section 6.07. In addition, Notice shall be given by direct mailing to the owners and occupants of property within one-quarter mile of any parcel or parcels on which such a project is located.

These notice requirements apply only to those projects described in Local Guidelines Section 5.11. These notice requirements do not preclude the District from providing additional notice by other means if desired.

(Reference: Pub. Resources Code, § 21092(c).)

6.13 CONSULTATION WITH WATER AGENCIES REGARDING LARGE DEVELOPMENT PROJECTS.

Under specific circumstances a city or county acting as Lead Agency must consult with the public water system that will supply the project to determine whether the public water system can adequately supply the water needed for the project. As a Responsible Agency, the District should be aware of these requirements. See Local Guidelines Section 5.16 for more information on these requirements.

(Reference: State CEQA Guidelines, § 15155.)

6.14 CONTENT OF NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION.

A Negative Declaration must be prepared directly by or under contract to the District and should generally resemble Form "E." It shall contain the following information:

(a) A brief description of the project proposed, including any commonly used name for the project;
(b) The location of the project and the name of the project proponent;

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(c) A finding that the project as proposed will not have a significant effect on the environment; and
(d) An attached copy of the Initial Study documenting reasons to support the finding.

For a Mitigated Negative Declaration, feasible mitigation measures included in the project to substantially lessen or avoid potentially significant effects must be fully enforceable through permit conditions, agreements, or other measures. Such permit conditions, agreements, and measures must be consistent with applicable constitutional requirements such as the "nexus" and "rough proportionality" standards established by case law.

The proposed Negative Declaration or Mitigated Negative Declaration must reflect the independent judgment of the District.

(Reference: State CEQA Guidelines, § 15071.)

6.15 TYPES OF MITIGATION.

The following is a non-exhaustive list of potential types of mitigation the District may consider:

(a) Avoidance;
(b) Preservation;
(c) Rehabilitation or replacement. Replacement may be on-site or off-site depending on the particular circumstances; and/or
(d) Participation in a fee program.

(Reference: State CEQA Guidelines, § 15370.)

6.16 ADOPTION OF NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION.

Following the publication, posting or mailing of the Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration, but not before the expiration of the applicable twenty (20) or thirty (30) day public review period, the Negative Declaration or Mitigated Negative Declaration may be presented to the decision-making body at a regular or special meeting. Prior to adoption, the District shall independently review and analyze the Negative Declaration or Mitigated Negative Declaration and find that the Negative Declaration or Mitigated Negative Declaration reflects the independent judgment of the District.

If new information is added to the Negative Declaration or Mitigated Negative Declaration after public review, the District should determine whether recirculation is warranted. (See Local Guidelines Section 6.19). If the decision-making body finds that the project will not have a significant effect on the environment, it shall adopt the Negative Declaration or Mitigated Negative Declaration. If the decision-making body finds that the proposed project may have a significant effect on the environment that cannot be mitigated or avoided, it shall order the preparation of a Draft EIR and the filing of a Notice of Preparation of a Draft EIR.

When adopting a Negative Declaration or Mitigated Negative Declaration, the District shall specify the location and custodian of the documents or other material that constitute the

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record of proceedings upon which it based its decision. If adopting a Negative Declaration for a project that may emit hazardous air emissions within one-quarter mile of a school and that meets the other requirements of Local Guidelines Section 6.06, the decision-making body must also make the findings required by Local Guidelines Section 6.06.

As Lead Agency, the District may charge a non-elected official or body with the responsibility of independently reviewing the adequacy of and adopting a Negative Declaration or a Mitigated Negative Declaration. Any final CEQA determination made by a non-elected decisionmaker, however, is appealable to the District's Board of Directors within either (a) the time period set forth in the District's established process to appeal the non-elected decisionmaker's CEQA determination; or, if no such process exists, (2) ten (10) days of the non-elected decisionmaker's determination. If the non-elected decisionmaker's CEQA determination is not timely appealed as set forth herein, the non-elected decisionmaker's determination shall be final.

(Reference: State CEQA Guidelines, § 15074.)

6.17 MITIGATION REPORTING OR MONITORING PROGRAM FOR MITIGATED NEGATIVE DECLARATION.

When adopting a Mitigated Negative Declaration pursuant to Local Guidelines Section 6.13, the District shall adopt a reporting or monitoring program to assure that mitigation measures, which are required to mitigate or avoid significant effects on the environment, will be fully enforceable through permit conditions, agreements, or other measures and implemented by the project proponent or other responsible party in a timely manner, in accordance with conditions of project approval. The District shall also specify the location and the custodian of the documents that constitute the record of proceedings upon which it based its decision. There is no requirement that the reporting or monitoring program be circulated for public review; however, the District may choose to circulate it for public comments along with the Mitigated Negative Declaration. The mitigation measures required to mitigate or avoid significant effects on the environment must be adopted as conditions of project approval.

This reporting or monitoring program shall be designed to assure compliance during the implementation or construction of a project and shall otherwise comply with the requirements described in Local Guidelines Section 7.38. If a Responsible Agency or Trustee Agency has required that certain conditions be incorporated into the project, the District may request that agency to prepare and submit a proposed reporting or monitoring program. The District shall also require that, prior to the close of the public review period for a Mitigated Negative Declaration (see Local Guidelines Section 6.04), the Responsible or Trustee Agency submit detailed performance objectives for mitigation measures, or refer the District to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to the District by a Responsible or Trustee Agency shall be limited to measures that mitigate impacts to resources that are within the Responsible or Trustee Agency's authority.

Local agencies have the authority to levy fees sufficient to pay for this program. Therefore, the District can charge the project proponent a fee to cover actual costs of program processing and implementation.

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Transportation information resulting from the reporting or monitoring program required to be adopted by the District shall be submitted to the regional transportation planning agency where the project is located and to the Department of Transportation for a project of statewide, regional or area-wide significance according to State CEQA Guidelines section 15206. The transportation planning agency and the Department of Transportation are required by law to adopt guidelines for the submittal of these reporting or monitoring programs, so the District may wish to tailor its submittal to such guidelines.

(Reference: State CEQA Guidelines, §§ 15074, 15097.)

6.18 APPROVAL OR DISAPPROVAL OF PROJECT.

At the time of adoption of a Negative Declaration or Mitigated Negative Declaration, the decision-making body may consider the project for purposes of approval or disapproval. Prior to approving the project, the decision-making body shall consider the Negative Declaration or Mitigated Negative Declaration, together with any written comments received and considered during the public review period, and shall approve or disapprove the Negative Declaration or Mitigated Negative Declaration. In making a finding as to whether there is any substantial evidence that the project will have a significant effect on the environment, the factors listed in Local Guidelines Section 5.08 should be considered. (See Local Guidelines Section 6.06 for approval requirements for facilities that may emit hazardous pollutants or that may handle extremely hazardous substances within one-quarter mile of a school site.)

(Reference: State CEQA Guidelines, § 15092.)

6.19 RECIRCULATION OF A NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION.

A Negative Declaration or Mitigated Negative Declaration must be recirculated when the document must be substantially revised after the public review period but prior to its adoption. A "substantial revision" occurs when the District has identified a new and avoidable significant effect for which mitigation measures or project revisions must be added in order to reduce the effect to a level of insignificance, or when the District determines that the proposed mitigation measures or project revisions will not reduce the potential effects to less than significant and new measures or revisions must be required.

Recirculation is not required under the following circumstances:

(a) Mitigation measures are replaced with equal or more effective measures, and the District makes a finding to that effect;
(b) New project revisions are added after circulation of the Negative Declaration or Mitigated Negative Declaration or in response to written or oral comments on the project's effects, but the revisions do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect;
(c) Measures or conditions of project approval are added after circulation of the Negative Declaration or Mitigated Negative Declaration, but the measures or conditions are not required by CEQA, do not create new significant environmental effects, and are not necessary to mitigate an avoidable significant effect; or

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(d) New information is added to the Negative Declaration or Mitigated Declaration which merely clarifies, amplifies, or makes insignificant modifications to the Negative Declaration or Mitigated Negative Declaration.

If, after preparation of a Negative Declaration or Mitigated Negative Declaration, the District determines that the project requires an EIR, it shall prepare and circulate the Draft EIR for consultation and review and advise reviewers in writing that a proposed Negative Declaration or Mitigated Declaration had previously been circulated for the project.

(Reference: State CEQA Guidelines, § 15073.5.)

6.20 NOTICE OF DETERMINATION ON A PROJECT FOR WHICH A PROPOSED NEGATIVE OR MITIGATED NEGATIVE DECLARATION HAS BEEN APPROVED.

After final approval of a project for which a Negative Declaration or Mitigated Negative Declaration has been prepared, Staff shall cause to be prepared, filed, and posted a Notice of Determination (Form "F"). The Notice of Determination shall contain the following information:

(a) An identification of the project, including the project title as identified on the proposed Negative Declaration or Mitigated Negative Declaration, location, and the State Clearinghouse identification number for the proposed Negative Declaration or Mitigated Negative Declaration if the Notice of Determination is filed with the State Clearinghouse;
(b) For private projects, identification of the person undertaking a project that is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies or the identity of the person receiving a lease, permit, license, certificate, or other entitlement for use from one or more public agencies;
(c) A brief description of the project;
(d) The name of the District and the date on which the District approved the project;
(e) The determination of the District that the project will not have a significant effect on the environment;
(f) A statement that a Negative Declaration or Mitigated Negative Declaration was adopted pursuant to the provisions of CEQA;
(g) A statement indicating whether mitigation measures were made a condition of the approval of the project, and whether a mitigation monitoring plan/program was adopted; and
(h) The address where a copy of the Negative Declaration or Mitigated Negative Declaration may be examined.

The Notice of Determination shall be filed within five (5) working days of project approval with both (1) the Clerk of each county in which the project will be located; and (2) the State Clearinghouse of the Office of Land Use and Climate Innovation.

The District must also post the Notice of Determination on its website. Such electronic notice is in addition to the posting requirements of the State CEQA Guidelines and the Public Resources Code. The Clerk must post the Notice of Determination within twenty-four (24) hours of receipt. The Notice must be posted in the office of the Clerk for a minimum of thirty (30) days. Thereafter, the Clerk shall return the notice to the District with a notation of the period it was posted. The District shall retain the notice for not less than twelve (12) months. For projects with

more than one phase, Staff shall file a Notice of Determination for each phase requiring a discretionary approval.

The filing and posting of the Notice of Determination with the County Clerk usually starts a thirty (30) day statute of limitations on court challenges to the approval under CEQA. When separate notices are filed for successive phases of the same overall project, the thirty (30) day statute of limitations to challenge the subsequent phase begins to run when the subsequent notice is filed. Failure to file the Notice may result in a one hundred eighty (180) day statute of limitations.

(Reference: State CEQA Guidelines, § 15075.)

6.21 ADDENDUM TO NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION.

The District may prepare an addendum to an adopted Negative Declaration or Mitigated Negative Declaration if only minor technical changes or additions are necessary. The District may also prepare an addendum to an adopted Negative Declaration or Mitigated Negative Declaration when none of the conditions calling for a subsequent Negative Declaration or Mitigated Negative Declaration have occurred. (See Local Guidelines Section 6.22 below.) An addendum need not be circulated for public review but can be attached to the adopted Negative Declaration or Mitigated Negative Declaration. The District shall consider the addendum with the adopted Negative Declaration or Mitigated Negative Declaration prior to project approval.

(Reference: State CEQA Guidelines, § 15164.)

6.22 SUBSEQUENT NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION.

When a Negative Declaration or Mitigated Negative Declaration has been adopted for a project, or when an EIR has been certified, no subsequent Negative Declaration, Mitigated Negative Declaration, or EIR shall be prepared for that project unless the Lead Agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(a) Substantial changes are proposed in the project which will require major revisions of the previous EIR, Negative Declaration, or Mitigated Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(b) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR, Negative Declaration, or Mitigated Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(c) New information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified or the Negative Declaration was adopted which shows any of the following:

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(1) The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;

(2) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(3) Mitigation measure(s) or alternative(s) previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents declined to adopt the mitigation measure(s) or alternative(s); or

(4) Mitigation measure(s) or alternative(s) which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure(s) or alternative(s).

The District, as Lead Agency, would then determine whether a Subsequent EIR, Supplemental EIR, Subsequent Negative Declaration, Subsequent Mitigated Negative Declaration, or Addendum would be applicable. Subsequent Negative Declarations and Mitigated Negative Declarations must be given the same notice and public review period as other Negative Declarations. The Subsequent Negative Declaration shall state where the previous document is available and can be reviewed.

(Reference: State CEQA Guidelines, § 15162.)

6.23 PRIVATE PROJECT COSTS.

For private projects, the person or entity proposing to carry out the project shall bear all costs incurred by the District in preparing the Initial Study and in preparing and filing the Negative Declaration or Mitigated Negative Declaration and Notice of Determination.

6.24 FILING FEES FOR PROJECTS THAT AFFECT WILDLIFE RESOURCES.

At the time a Notice of Determination for a Negative Declaration or Mitigated Negative Declaration is filed with the County or Counties in which the project is located, a fee of $3,043.75, or the then applicable fee, shall be paid to the Clerk for projects that will adversely affect fish or wildlife resources. These fees are collected by the Clerk on behalf of DFW pursuant to Fish and Game Code section 711.4.

Only one filing fee is required for each project unless the project is tiered or phased and separate environmental documents are prepared. (Fish & Game Code section 711.4(g).) For projects where Responsible Agencies file separate Notices of Determination, only the Lead Agency is required to pay the fee.

Note: County Clerks are authorized to charge a documentary handling fee for each project in addition to the Fish and Game Code fees specified above. Refer to the Index in the Staff Summary to help determine the correct total amount of fees applicable to the project.

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For private projects, the District may pass these costs on to the project applicant.

Fish and Game Code fees may be waived for projects with "no effect" on fish or wildlife resources or for certain projects undertaken by the DFW and implemented through a contract with a non-profit entity or local government agency; however, the Lead Agency must obtain a form showing that the DFW has determined that the project will have "no effect" on fish and wildlife. (Fish and Game Code section 711.4(c)(2)(A)). Projects that are statutorily or categorically exempt from CEQA are also not subject to the filing fee, and do not require a no effect determination. (State CEQA Guidelines sections 15260 through 15333; Fish and Game Code section 711.4(d)(1)). The applicable DFW Regional Office's environmental review and permitting staff are responsible for determining whether a project within their region will qualify for a no effect determination and if the CEQA filing fee will be waived.

The request should be submitted when the CEQA document is released for public review, or as early as possible in the public comment period. Documents submitted in digital format are preferred (e.g. compact disk). If insufficient documentation is submitted to DFW for the proposed project, a no effect determination will not be issued.

If the District believes that a project for which it is Lead Agency will have "no effect" on fish or wildlife resources, it should contact the appropriate DFW Regional Office. The project's CEQA document may need to be provided to the appropriate DFW Regional Office along with a written request. Documentation submitted to the appropriate DFW Regional Office should set forth facts in support of the fee exemption. Previous examples of projects that have qualified for a fee exemption include: minor zoning changes that did not lead to or allow new construction, grading, or other physical alterations to the environment; and minor modifications to existing structures, including addition of a second story to single or multi-family residences.

The fee exemption requirement that the project have "no" impact on fish or wildlife resources is more stringent than the former requirement that a project have only "de minimis" effects on fish or wildlife resources. DFW may determine that a project would have no effect on fish and wildlife if all of the following conditions apply:

- The project would not result in or have the potential to result in harm, harassment, or take of any fish and/or wildlife species.

- The project would not result in or have the potential to result in direct or indirect destruction, ground disturbance, or other modification of any habitat that may support fish and/or wildlife species.

- The project would not result in or have the potential to result in the removal of vegetation with potential to support wildlife.

- The project would not result in or have the potential to result in noise, vibration, dust, light, pollution, or an alteration in water quality that may affect fish and/or wildlife directly or from a distance.

- The project would not result in or have the potential to result in any interference with the movement of any fish and/or wildlife species.

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Any request for a fee exemption should include the following information:

(1) the name and address of the project proponent and applicant contact information;

(2) a brief description of the project and its location;

(3) site description and aerial and/or topographic map of the project site;

(4) State Clearinghouse number or county filing number;

(5) a statement that an Initial Study has been prepared by the District to evaluate the project's effects on fish and wildlife resources, if any; and

(6) a declaration that, based on the District's evaluation of potential adverse effects on fish and wildlife resources, the District believes the project will have no effect on fish or wildlife.

If insufficient documentation is submitted to DFW for the proposed project, a no effect determination will not be issued. (A sample Request for Fee Exemption is attached as Form "L".) DFW will review the District's finding, and if DFW agrees with the District's conclusions, DFW will provide the District with written confirmation. The District should retain DFW's determination as part of the administrative record; the District is required to file a copy of this determination with the County after project approval and at the time of filing of the Notice of Determination.

The District must have written confirmation of DFW's finding of "no impact" at the time the District files its Notice of Determination with the County. The County cannot accept the Notice of Determination unless it is accompanied by the appropriate fee or a written no effect determination from DFW.

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7. ENVIRONMENTAL IMPACT REPORT

7.01 DECISION TO PREPARE AN EIR.

An EIR shall be prepared whenever there is substantial evidence in light of the whole record which supports a fair argument that the project may have a significant effect on the environment. (See Local Guidelines Sections 11.67 and 11.73.) The record may include the Initial Study or other documents or studies prepared to assess the project's environmental impacts.

(Reference: Pub. Resources Code, § 21151.)

7.02 CONTRACTING FOR PREPARATION OF EIRS.

If an EIR is prepared under a contract with the District, the contract must be executed within forty-five (45) days from the date on which the District sends a Notice of Preparation. The District may take longer to execute the contract if the project applicant and the District mutually agree to an extension of the 45-day time limit. (Reference: Pub. Resources Code, § 21151.5.)

The EIR prepared under contract must be the District's product. Staff, together with such consultant help as may be required, shall independently review and analyze the EIR to verify its accuracy, objectivity and completeness prior to presenting it to the decision-making body. The EIR made available for public review must reflect the independent judgment of the District. Staff may require such information and data from the person or entity proposing to carry out the project as Staff deems necessary for completion of the EIR. (Reference: State CEQA Guidelines, §§ 15084, 15090.)

7.03 NOTICE OF PREPARATION OF DRAFT EIR.

After determining that an EIR will be required for a proposed project, the Lead Agency shall prepare and submit a Notice of Preparation (Form "G") to the Office of Land Use and Climate Innovation through its CEQA Submit website and to each of the following:

(a) Each Responsible Agency and Trustee Agency involved with the project;
(b) Any other federal, state, or local agency which has jurisdiction by law or exercises authority over resources affected by the project, including:

(1) Any water supply agency consulted under Local Guidelines Section 5.16;

(2) Any city or county bordering on the project area;

(3) For a project of statewide, regional, or area-wide significance, to any transportation agencies or public agencies which have major local arterials or public transit facilities within five (5) miles of the project site or freeways, highways, or rail transit service within ten (10) miles of the project site which could be affected by the project; and

(4) For a subdivision project located within one mile of a facility of the State Water Resources Development System, the California Department of Water Resources;

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(c) The last known name and address of all organizations and individuals who have previously filed a written request with the District to receive these Notices;
(d) For certain projects that may impact a low-level flight path, military impact zone, or special use airspace and that meet the other criteria in Local Guidelines Section 7.04, the specified military services contact;
(e) For certain projects that involve the construction or alteration of a facility anticipated to emit hazardous air emissions or handle hazardous substances within one-quarter mile of a school and that meet the other requirements of Local Guidelines Section 7.36, any potentially affected school district;
(f) For certain waste-burning projects that meet the requirements of Local Guidelines Section 5.11 (See also Local Guidelines Section 7.27), the owners and occupants of property within one-fourth mile of any parcel on which the project will be located; and
(g) For a project that establishes or amends a redevelopment plan that contains land in agricultural use, the agricultural and farm agencies and organizations specified in Health and Safety Code section 33333.3.

Additionally, for a project of statewide, regional, or area-wide significance, the Lead Agency should also consult with public transit agencies with facilities within one-half mile of the proposed project.

The Notice of Preparation must also be filed and posted in the office of the Clerk in each county in which the project is located for thirty (30) days. The County Clerk must post the Notice within twenty-four (24) hours of receipt.

When submitting the Notice of Preparation to LCI, a Notice of Completion (Form "H") should be used as a cover sheet. Responsible and Trustee Agencies, the State Clearinghouse, and the state agencies contacted by the State Clearinghouse have thirty (30) days to respond to the Notice of Preparation in writing via certified mail, email, or an equivalent procedure. Agencies that do not respond within thirty (30) days shall be deemed not to have any comments on the Notice of Preparation.

At a minimum, the Notice of Preparation shall include:

(a) A description of the project;
(b) The location of the project indicated either on an attached map (preferably a copy of the USGS 15' or 7½' topographical map identified by quadrangle name) or by a street address and cross street in an urbanized area;
(c) The probable environmental effects of the project;
(d) The name and address of the consulting firm retained to prepare the Draft EIR, if applicable; and
(e) The Environmental Protection Agency ("EPA") list on which the proposed site is located, if applicable, and the corresponding information from the applicant's statement. (See Local Guidelines Section 2.05.)

(Reference: Pub. Resources Code, § 21080.4; State CEQA Guidelines, § 15082.)

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7.04 SPECIAL NOTICE REQUIREMENTS FOR AFFECTED MILITARY AGENCIES

CEQA imposes additional requirements to provide notice to potentially affected military agencies when:

(a) A "military service" (defined in Section 11.44 of these Local Guidelines) has provided the District with its contact office and address and notified the District of the specific boundaries of a "low-level flight path" (defined in Section 11.38 of these Local Guidelines), "military impact zone" (defined in Section 11.43 of these Local Guidelines), or "special use airspace" (defined in Section 11.69 of these Local Guidelines); and

(b) The project meets one of the following criteria:

(1) The project is within the boundaries specified pursuant to subsection (a) of this guideline;

(2) The project includes a general plan amendment;

(3) The project is of statewide, regional, or area-wide significance; or

(4) The project relates to a public use airport or certain lands surrounding a public use airport.

When a project meets these requirements, the District must provide the military service's designated contact with any Notice of Preparation, and/or Notice of Availability of Draft EIRs that have been prepared for a project, unless the project involves the remediation of lands contaminated with hazardous wastes and meets certain other requirements.

The District must provide the military service with sufficient notice of its intent to certify an EIR to ensure that the military service has no fewer than thirty (30) days to review the document; or forty-five (45) days to review the environmental documents before they are approved if the documents have been submitted to the State Clearinghouse.

It should be noted that the effect, or potential effect, a project may have on military activities does not itself constitute an adverse effect on the environment pursuant to CEQA.

(Reference: Pub. Resources Code, §§ 21080.4, 21092; Health & Safety Code, §§ 25300, et seq., 25396, 25187; State CEQA Guidelines, § 15082(a).)

7.05 ENVIRONMENTAL LEADERSHIP DEVELOPMENT PROJECT.

Under certain circumstances, a project applicant may choose to apply to the Governor of the State of California to have the project certified as an Environmental Leadership Development Project. A project may qualify as an Environmental Leadership Development Project if it is one of the following:

(1) A residential, retail, commercial, sports, cultural, entertainment, or recreational use project that meets the following standards:

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- The project is certified as Leadership in Energy and Environmental Design (LEED) gold or better by the United States Green Building Council; and

- The project, where applicable, achieves a 15 percent greater standard for transportation efficiency than comparable projects; and

- The project is located on an infill site; and

- For a project that is within a metropolitan planning organization for which a sustainable communities strategy or alternative planning strategy is in effect, the infill project shall be consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy, for which the State Air Resources Board has accepted a metropolitan planning organization's determination, under subparagraph (H) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code, that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets.

(2) A clean renewable energy project that generates electricity exclusively through wind or solar, but not including waste incineration or conversion.

(3) A clean energy manufacturing project that manufactures products, equipment, or components used for renewable energy generation, energy efficiency, or for the production of clean alternative fuel vehicles.

(4) A housing development project—i.e., a project that entails either residential units only; mixed-use developments consisting of residential and nonresidential uses with at least two-thirds of the square footage designated for residential use; or transitional housing or supportive housing—that meets all of the following conditions:

- The housing development project is located on an infill site.

- For a housing development project that is located within a metropolitan planning organization for which a sustainable communities strategy or alternative planning strategy is in effect, the project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy, for which the State Air Resources Board has accepted a metropolitan planning organization's determination, under subparagraph (H) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code, that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets.

- Notwithstanding paragraph (1) of subdivision (a) of Section 21183, the housing development project will result in a minimum investment of fifteen million

dollars ($15,000,000), but less than one hundred million dollars ($100,000,000), in California upon completion of construction.

- At least 15 percent of the housing development project is dedicated as housing that is affordable to lower income households, as defined in Section 50079.5 of the Health and Safety Code. Upon completion of a housing development project that is qualified under this paragraph and is certified by the Governor, the lead agency or applicant of the project shall notify the Office of Land Use and Climate Innovation of the number of housing units and affordable housing units established by the project. Notwithstanding the foregoing, if a local agency has adopted an inclusionary zoning ordinance that establishes a minimum percentage for affordable housing within the jurisdiction in which the housing development project is located that is higher than 15 percent, the percentage specified in the inclusionary zoning ordinance shall be the threshold for affordable housing.

- Except for use as a residential hotel, as defined in Section 50519 of the Health and Safety Code, no part of the housing development project shall be used for a rental unit for a term shorter than 30 days, or designated for hotel, motel, bed and breakfast inn, or other transient lodging use. Moreover, no part of the housing development project shall be used for manufacturing or industrial uses.

The Governor may certify a leadership project for streamlining before the lead agency certifies an EIR for the project if various conditions set forth in Public Resources Code section 21182 are met. The conditions include but are not limited to the following: (1) except as set forth above, the project will result in a minimum investment of one hundred million dollars ($100,000,000) in California upon completion of construction; (2) the project creates high-wage, highly skilled jobs that pay prevailing wages and living wages, provide construction jobs and permanent jobs for Californians, helps reduce unemployment, and promotes apprenticeship training; and (3) the project will not result in any net additional emission of greenhouse gases, including greenhouse gas emissions from employee transportation.

If the Governor certifies a project as an Environmental Leadership Development Project, any lawsuit challenging the project—including any potential appeals to the court of appeal or the California Supreme Court—must be resolved, to the extent feasible, within 270 days of the filing of the certified record of proceedings with the trial court.

This section shall remain in effect until January 1, 2026. This section does not comprehensively set forth the rules governing Environmental Leadership Development projects. For more information, please see Chapter 6.5 of the Public Resources Code, starting with Public Resources Code section 21178.

7.06 PREPARATION OF DRAFT EIR.

The Lead Agency is responsible for preparing a Draft EIR. The Lead Agency may begin preparation of the Draft EIR without awaiting responses to the Notice of Preparation. However,

information communicated to the Lead Agency not later than thirty (30) days after receipt of the Notice of Preparation shall be included in the Draft EIR.

(Reference: State CEQA Guidelines, § 15084.)

7.07 CONSULTATION WITH CALIFORNIA NATIVE AMERICAN TRIBES.

Prior to the release of a Draft EIR for a project, the Lead Agency shall begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if:

(a) The California Native American tribe requested to the Lead Agency, in writing, to be informed by the Lead Agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe; and

(b) The California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. The California Native American tribe shall designate a lead contact person when responding to the Lead Agency. If a lead contact is not designated by the California Native American tribe, or if it designates multiple lead contact people, the Lead Agency shall defer to the individuals listed on the contact list maintained by the Native American Heritage Commission. Consultation is defined in Local Guidelines Section 11.11.

To expedite the requirements of this section, the Native American Heritage Commission shall assist the Lead Agency in identifying the California American Native tribes that are traditionally and culturally affiliated with the project area.

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the Lead Agency shall provide formal notification to the designated contact of, or a trial representative of, traditionally and culturally affiliated California Native America tribes that have requested notice, which shall be accomplished by at least one written notification that includes a brief description of the proposed project and its location, the Lead Agency contact information, and a notification that the California Native American tribe has 30 days to request consultation.

The Lead Agency shall begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation.

If consultation is requested, the parties may propose mitigation measures, including those set forth in Public Resources Code section 21084.3, capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource. The consultation may include discussion concerning the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and, if necessary, project alternatives or the appropriate measures for preservation or mitigation that the California Native American tribe may recommend to the lead agency.

The consultation shall be considered concluded when either of the following occurs:

(1) The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource.

(2) A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

The California Native American tribe is not limited in its ability to submit information to the Lead Agency regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any appropriate measures to mitigate the impacts. Additionally, the Lead Agency or project proponent is not limited in its ability to incorporate changes and additions to the project as a result of the consultation, even if not legally required.

(Reference: Pub. Resources Code, §§ 21080.3.1, 21080.3.2.)

7.08 IDENTIFICATION OF TRIBAL CULTURAL RESOURCES AND PROCESSING OF INFORMATION AFTER CONSULTATION WITH THE CALIFORNIA NATIVE AMERICAN TRIBE

After consultation with the California Native American tribe listed above in Local Guidelines Section 7.07, any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the EIR and in an adopted mitigation monitoring and reporting program, if the mitigation measures are determined to avoid or lessen the proposed project's impacts on tribal cultural resources, and if the mitigation measures are enforceable.

If a project may have a significant impact on a tribal cultural resource, the Lead Agency's EIR shall discuss both of the following:

(a) Whether the proposed project has a significant impact on an identified tribal cultural resource;

(b) Whether feasible alternatives or mitigation measures, including those measures that may be agreed to during the consultation, avoid or substantially lessen the impact on the identified tribal cultural resource.

Any information provided regarding the location, description and use of the tribal cultural resource that is submitted by a California Native American tribe during the environmental review process shall not be included in the EIR or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code section 7927.005, and State CEQA Guidelines section 15120(d), without the prior consent of the tribe that provided the information. If the Lead Agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the EIR unless the tribe provides consent, in writing, to the disclosure of some or all of the information to the public. This does not prohibit the confidential exchange of the submitted information between public agencies that have lawful jurisdiction over the preparation of the EIR.

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The exchange of confidential information regarding tribal cultural resources submitted by a California Native American tribe during the consultation or environmental review process among the Lead Agency, the California Native American tribe, the project applicant, or the project applicant's agent is not prohibited by Public Resources Code section 21082.3. The project applicant and the project applicant's legal advisers must use a reasonable degree of care and maintain the confidentiality of the information exchanged for the purposes of preventing looting, vandalism, or damage to tribal cultural resources and shall not disclose to a third party confidential information regarding the cultural resource unless the California Native American tribe providing the information consents in writing to the public disclosure of such information.

Public Resources Code section 21082.3 does not prevent a Lead Agency or other public agency from describing the information in general terms in the EIR so as to inform the public of the basis of the Lead Agency's or other public agency's decision without breaching the confidentiality required. In addition, a Lead Agency may certify an EIR for a project with a significant impact on an identified tribal cultural resource only if one of the following occurs:

(a) The consultation process between the California Native American tribe and the Lead Agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to subdivision (b) of Section 21080.3.2.

(b) The California Native American tribe has requested consultation pursuant to Public Resources Code section 21080.3.1 and has failed to provide comments to the Lead Agency, or otherwise failed to engage, in the consultation process.

(c) The Lead Agency has complied with subdivision (d) of Section 21080.3.1 of the Public Resources Code and the California Native American tribe has failed to request consultation within 30 days.

If substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource but the decision-makers do not include the mitigation measures recommended by the staff in the Draft EIR, or if there are no agreed upon mitigation measures at the conclusion of the consultation, or if no consultation has occurred, the Lead Agency must still consider the adoption of feasible mitigation.

(Reference: Pub. Resources Code, § 21082.3.)

7.09 SIGNIFICANT ADVERSE IMPACTS TO TRIBAL CULTURAL RESOURCES

Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. If the Lead Agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided in Public Resources Code section 21080.3.2 as set forth in Local Guidelines Section 7.07, the following examples of mitigation measures, if feasible, may be considered to avoid or minimize the significant adverse impacts:

(a) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural

context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

(b) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to the following:

(1) Protecting the cultural character and integrity of the resource.

(2) Protecting the traditional use of the resource.

(3) Protecting the confidentiality of the resource.

(c) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

(d) Protecting the resource.

(Reference: Pub. Resources Code, § 21084.3.)

7.10 CONSULTATION WITH OTHER AGENCIES AND PERSONS.

To expedite consultation in response to the Notice of Preparation, the Lead Agency, a Responsible Agency, or a project applicant may request a meeting among the agencies involved to assist in determining the scope and content of the environmental information that the involved agencies may require. For any project that may affect highways or other facilities under the jurisdiction of the State Department of Transportation, the Department of Transportation can request a scoping meeting. When acting as Lead Agency, the District must convene the meeting as soon as possible but no later than thirty (30) days after a request is made. When acting as a Responsible Agency, the District should make any requests for consultation as soon as possible after receiving a Notice of Preparation.

Prior to completion of the Draft EIR, the Lead Agency shall consult with each Responsible Agency and any public agency that has jurisdiction by law over the project.

When acting as a Lead Agency, the District may fulfill this obligation by distributing the Notice of Preparation in compliance with Local Guidelines Section 7.03 and soliciting the comments of Responsible Agencies, Trustee Agencies, and other affected agencies. The District may also consult with any individual who has special expertise with respect to any environmental impacts involved with a project. The District may also consult directly with any person or organization it believes will be concerned with the environmental effects of the project, including any interested individuals and organizations of which the District is reasonably aware. The purpose of this consultation is to "scope" the EIR's range of analysis. When a Negative Declaration or Mitigated Negative Declaration will be prepared for a project, no scoping meeting need be held, although the District may hold one if it so chooses. For private projects, the District as Lead Agency may charge and collect from the applicant a fee not to exceed the actual cost of the consultations.

In addition to soliciting comments on the Notice of Preparation, the Lead Agency may be required to conduct a scoping meeting to gather additional input regarding the impacts to be analyzed in the EIR. The Lead Agency is required to conduct a scoping meeting when:

(a) The meeting is requested by a Responsible Agency, a Trustee Agency, the Office of Land Use and Climate Innovation, or a project applicant;
(b) The project is one of "statewide, regional or area wide significance" as defined in State CEQA Guidelines section 15206; or
(c) The project may affect highways or other facilities under the jurisdiction of the State Department of Transportation, and the Department of Transportation has requested a scoping meeting.

When acting as Lead Agency, the District shall provide notice of the scoping meeting to all of the following:

(a) Any county or city that borders on a county or city within which the project is located, unless the District has a specific agreement to the contrary with that county or city;
(b) Any Responsible Agency;
(c) Any public agency that has jurisdiction by law over the project;
(d) A transportation planning agency, or any public agency that has transportation facilities within its jurisdiction, that could be affected by the project; and
(e) Any organization or individual who has filed a written request for the notice.

The requirement for providing notice of a scoping meeting may be met by including the notice of the public scoping meeting in the public meeting notice.

Government Code section 65352 requires that before a legislative body may adopt or substantially amend a general plan, the planning agency must refer the proposed action to any city or county, within or abutting the area covered by the proposal, and any special district that may be significantly affected by the proposed action. CEQA allows that referral procedure to be conducted concurrently with the scoping meeting required pursuant to this section of the Local CEQA Guidelines.

For projects that are also subject to NEPA, a scoping meeting held pursuant to NEPA satisfies the CEQA scoping requirement as long as notice is provided to the agencies and individuals listed above, and in accordance with these Local Guidelines. (See Local Guideline 5.04 for a discussion of NEPA.)

The District shall call the scoping meeting as soon as possible but not later than 30 days after the meeting was requested. If the scoping meeting is being conducted concurrently with the procedure in Government Code section 65352 for the consideration of adoption or amendment of general plans, each entity receiving a proposed general plan or amendment of a general plan should have 45 days from the date the referring agency mails it or delivers it in which to comment unless a longer period is specified. The commenting entity may submit its comments at the scoping meeting.

A Responsible Agency or other public agency shall only make comments regarding those activities that are within its area of expertise or that are required to be carried out or approved by

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the Responsible Agency. These comments must be supported by specific documentation. Any mitigation measures submitted to the District by a Responsible or Trustee Agency shall be limited to measures that mitigate impacts to resources that are within the Responsible or Trustee Agency's authority.

For projects of statewide, area-wide, or regional significance, consultation with transportation planning agencies or with public agencies that have transportation facilities within their jurisdictions shall be for the purpose of obtaining information concerning the project's effect on major local arterials, public transit, freeways, highways, overpasses, on-ramps, off-ramps, and rail transit services. Moreover, the Lead Agency should also consult with public transit agencies with facilities within one-half mile of the proposed project. Any transportation planning agency or public agency that provides information to the Lead Agency must be notified of, and provided with, copies of any environmental documents relating to the project.

(Reference: State CEQA Guidelines, §§ 15082, 15083.)

7.11 EARLY CONSULTATION ON PROJECTS INVOLVING PERMIT ISSUANCE.

When the project involves the issuance of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies, the District, upon request of the applicant, shall meet with the applicant regarding the range of actions, potential alternatives, mitigation measures and significant effects to be analyzed in depth in the EIR. The District may also consult with concerned persons identified by the applicant and persons who have made written requests to be consulted. Such requests for early consultation must be made not later than thirty (30) days after the District's decision to prepare an EIR.

7.12 CONSULTATION WITH WATER AGENCIES REGARDING LARGE DEVELOPMENT PROJECTS.

For certain development projects, cities and counties must consult with water agencies. If the District is a water provider for the project, the city or county may request consultation with the District. (See Local Guidelines Sections 5.16 and 5.17 for more information on these requirements.)

(Reference: State CEQA Guidelines, § 15155.)

7.13 AIRPORT LAND USE PLAN.

When the District prepares an EIR for a project within the boundaries of a comprehensive airport land use plan, or, if such a plan has not been adopted, for a project within two (2) nautical miles of a public airport or public use airport, the District shall utilize the Airport Land Use Planning Handbook published by Caltrans' Division of Aeronautics to assist in the preparation of the EIR relative to potential airport or related safety hazards and noise problems.

(Reference: State CEQA Guidelines, § 15154.)

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7.14 GENERAL ASPECTS OF AN EIR.

Both a Draft and Final EIR must contain the information outlined in Local Guidelines Sections 7.17 and 7.18. Each element must be covered, and when elements are not separated into distinct sections, the document must state where in the document each element is covered.

The body of the EIR shall include summarized technical data, maps, diagrams and similar relevant information. Highly technical and specialized analyses and data should be included in appendices. Appendices may be prepared in separate volumes, but must be equally available to the public for examination. All documents used in preparation of the EIR must be referenced. An EIR shall not include "trade secrets," locations of archaeological sites and sacred lands, or any other information subject to the disclosure restrictions of the Public Records Act (Government Code section 7920.000, et seq.).

The EIR should discuss environmental effects in proportion to their severity and probability of occurrence. Effects dismissed in the Initial Study as clearly insignificant and unlikely to occur need not be discussed.

The Initial Study should be used to focus the EIR so that the EIR identifies and discusses only the specific environmental problems or aspects of the project that have been identified as potentially significant or important. A copy of the Initial Study should be attached to the EIR or included in the administrative record to provide a basis for limiting the impacts discussed.

The EIR shall contain a statement briefly indicating the reason for determining that various effects of a project that could possibly be considered significant were not found to be significant and consequently were not discussed in detail in the EIR. The District should also note any conclusion by it that a particular impact is too speculative for evaluation.

The EIR should omit unnecessary descriptions of projects and emphasize feasible mitigation measures and alternatives to projects.

7.15 USE OF REGISTERED CONSULTANTS IN PREPARING EIRS.

An EIR is not a technical document that can be prepared only by a registered consultant or professional. However, state statutes may provide that only registered professionals can prepare certain technical studies that will be used in an EIR, or that will control the detailed design, construction, or operation of the proposed project and that will be prepared in support of an EIR.

(Reference: State CEQA Guidelines, § 15149.)

7.16 INCORPORATION BY REFERENCE.

An EIR, Negative Declaration, or Mitigated Negative Declaration may incorporate by reference all or portions of another document that is a matter of public record or is generally available to the public. Any incorporated document shall be considered to be set forth in full as part of the text of the environmental document. When all or part of another document is incorporated by reference, that document shall be made available to the public for inspection at

the District's offices. The environmental document shall state where incorporated documents will be available for inspection.

When incorporation by reference is used, the incorporated part of the referenced document shall be briefly summarized, if possible, or briefly described if the data or information cannot be summarized. The relationship between the incorporated document and the EIR, Negative Declaration, or Mitigated Negative Declaration shall be described. When information from an environmental document that has previously been reviewed through the state review system ("State Clearinghouse") is incorporated by the District, the state identification number of the incorporated document should be included in the summary or text of the EIR.

(Reference: State CEQA Guidelines, § 15150.)

7.17 STANDARDS FOR ADEQUACY OF AN EIR.

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information that enables them to make a decision that takes into account the environmental consequences of the project. The evaluation of environmental effects need not be exhaustive, but must be within the scope of what is reasonably feasible. The EIR should be written and presented in such a way that it can be understood by governmental decision-makers and members of the public. A good faith effort at completeness is necessary. The adequacy of an EIR is assessed in terms of what is reasonable in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project. CEQA does not require a Lead Agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters, but CEQA does require the Lead Agency to make a good faith, reasoned response to timely comments raising significant environmental issues.

There is no need to unreasonably delay adoption of an EIR in order to include results of studies in progress, even if those studies will shed some additional light on subjects related to the project.

(Reference: State CEQA Guidelines, § 15151.)

7.18 FORM AND CONTENT OF EIR.

The text of the EIR should normally be less than 150 pages. For proposals of unusual scope or complexity, the EIR may be longer than 150 pages but should normally be less than 300 pages. The required contents of an EIR are set forth in Sections 15122 through 15132 of the State CEQA Guidelines. In brief, the EIR must contain:

(a) A table of contents or an index;
(b) A brief summary of the proposed project, including each significant effect with proposed mitigation measures and alternatives, areas of known controversy and issues to be resolved including the choice among alternatives, how to mitigate the significant effects and whether there are any significant and unavoidable impacts (generally, the summary should be less than fifteen (15) pages);

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(c) A description of the proposed project, including its underlying purpose and a list of permit and other approvals required to implement the project (see Local Guidelines Section 7.24 regarding analysis of future project expansion);

(d) A description of the environmental setting, which includes the project's physical environmental conditions from both a local and regional perspective at the time the Notice of Preparation is published, or if no Notice of Preparation is published, at the time environmental analysis begins. (State CEQA Guidelines section 15125.) This environmental setting will normally constitute the baseline physical conditions by which the Lead Agency determines whether an impact is significant. However, the District, when acting as Lead Agency, may choose any baseline that is appropriate as long as the District's choice of baseline is supported by substantial evidence;

(e) A discussion of any inconsistencies between the proposed project and applicable general, specific and regional plans. Such plans include, but are not limited to, the applicable air quality attainment or maintenance plan or State Implementation Plan, area-wide waste treatment and water quality control plans, regional transportation plans, regional housing allocation, regional blueprint plans, plans for the reduction of greenhouse gas emissions, habitat conservation plans, natural community conservation plans and regional land use plans;

(f) A description of the direct and indirect significant environmental impacts of the proposed project explaining which, if any, can be avoided or mitigated to a level of insignificance, indicating reasons that various possible significant effects were determined not to be significant and denoting any significant effects that are unavoidable or could not be mitigated to a level of insignificance. Direct and indirect significant effects shall be clearly identified and described, giving due consideration to both short-term and long-term effects;

(g) Potentially significant energy implications of a project must be considered to the extent relevant and applicable to the project (see Local Guidelines Section 5.20);

(h) An analysis of a range of alternatives to the proposed project that could feasibly attain the project's objectives as discussed in Local Guidelines Section 7.23;

(i) A description of any significant irreversible environmental changes that would be involved in the proposed action should it be implemented if, and only if, the EIR is being prepared in connection with:

(1) The adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency;

(2) The adoption by a Local Agency Formation Commission of a resolution making determinations; or

(3) A project that will be subject to the requirement for preparing an Environmental Impact Statement pursuant to NEPA;

(j) An analysis of the growth-inducing impacts of the proposed action. The discussion should include ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth-inducing impacts may include the estimated energy consumption of growth induced by the project;

(k) A discussion of any significant, reasonably anticipated future developments and the cumulative effects of all proposed and anticipated action as discussed in Local Guidelines Section 7.24;

(l) In certain situations, a regional analysis should be completed for certain impacts, such as air quality;

(m) A discussion of any economic or social effects, to the extent that they cause, or may be used to determine, significant environmental impacts;

(n) A statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and, therefore, were not discussed in the EIR;

(o) The identity of all federal, state or local agencies or other organizations and private individuals consulted in preparing the EIR, and the identity of the persons, firm or agency preparing the EIR, by contract or other authorization. To the fullest extent possible, the District should integrate CEQA review with these related environmental review and consultation requirements;

(p) A discussion of those potential effects of the proposed project on the environment that the District has determined are or may be significant. The discussion on other effects may be limited to a brief explanation as to why those effects are not potentially significant; and

(q) A description of feasible measures, as set forth in Local Guidelines Section 7.22, which could minimize significant adverse impacts.

(Reference: State CEQA Guidelines, §§ 15120-15148.)

7.19 CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS.

An EIR must identify and focus on the significant effects of the proposed project on the environment. In assessing the proposed project's potential impacts on the environment, the District should normally limit its examination to comparing changes that would result from the project as compared to the existing physical conditions in the affected area as they exist when the Notice of Preparation is published. If a Notice of Preparation is not published for the project, the District should compare the proposed project's potential impacts to the physical conditions that exist at the time environmental review begins. Direct and indirect significant effects of the project on the environment must be clearly identified and described, considering both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the project that may impact resources in the project area, such as water, historical resources, scenic quality, and public services. The EIR must also analyze any significant environmental effects the project might cause or risk exacerbating by bringing development and people into the area. If applicable, an EIR should also evaluate any potentially significant direct, indirect, or cumulative environmental impacts of locating development in areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas), including both short-term and long-term conditions, as identified on authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.

If analysis of the project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use

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of energy resources, the EIR shall mitigate that energy use. This analysis should include the project's energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include, among others, the project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project. This analysis is subject to the rule of reason and shall focus on energy use that is caused by the project. This analysis may be included in related analyses of air quality, greenhouse gas emissions, transportation or utilities in the discretion of the Lead Agency.

The EIR must describe all significant impacts, including those that can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.

The EIR must also discuss any significant irreversible environmental changes that would be caused by the project. For example, use of nonrenewable resources during the initial and continued phases of a project may be irreversible if a large commitment of such resources makes removal or nonuse thereafter unlikely. Additionally, irreversible commitment of resources may include a discussion of how the project preempts future energy development or future energy conservation. Irretrievable commitments of resources to the proposed project should be evaluated to assure that such current consumption is justified.

(Reference: Pub. Resources Code, § 21100.)

7.20 ENVIRONMENTAL SETTING

An EIR must include a description of the physical environmental conditions in the vicinity of the project. This environmental setting will normally constitute the baseline physical conditions by which the Lead Agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project and its alternatives. The purpose of this requirement is to give the public and decision makers the most accurate and understandable picture practically possible of the project's likely near-term and long-term impacts.

(1) Generally, the Lead Agency should describe physical environmental conditions as they exist at the time the Notice of Preparation is published, or if no Notice of Preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. Where existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project's impacts, the Lead Agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence. In addition, the Lead Agency may also use baselines consisting of both existing conditions and projected future conditions that are supported by reliable projections based on substantial evidence in the record.

(2) The Lead Agency may use projected future conditions (beyond the date of project operations) as the sole baseline for analysis only if it demonstrates with substantial evidence that use of existing conditions would be either misleading or without informative value to decision-

makers and the public. Use of projected future conditions as the only baseline must be supported by reliable projections based on substantial evidence in the record.

(3) An existing conditions baseline shall not include hypothetical conditions—such as those that might be allowed, but have never actually occurred, under existing permits or plans—as the baseline.

(State CEQA Guidelines, § 15125.)

7.21 ANALYSIS OF CUMULATIVE IMPACTS.

An EIR must discuss cumulative impacts when the project's incremental effect is "cumulatively considerable" as defined in Local Guidelines Section 11.13. When the District is examining a project with an incremental effect that is not "cumulatively considerable," it need not consider that effect significant, but must briefly describe the basis for this conclusion. A project's contribution may be less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact. When relying on a fee program or mitigation measure(s), the District must identify facts and analysis supporting its conclusion that the cumulative impact is less than significant.

The District may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem in the geographic area in which the project is located. Such plans and programs may include, but are not limited to:

(1) Water quality control plans;

(2) Air quality attainment or maintenance plans;

(3) Integrated waste management plans;

(4) Habitat conservation plans;

(5) Natural community conservation plans; and/or

(6) Plans or regulations for the reduction of greenhouse gas emissions.

When relying on such a regulation, plan, or program, the District should explain how implementing the particular requirements of the plan, regulation or program will ensure that the project's incremental contribution to the cumulative effect is not cumulatively considerable.

A cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR.

The discussion of cumulative impacts in an EIR must focus on the cumulative impacts to which the identified other projects contribute, rather than on the attributes of other projects that do

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not contribute to the cumulative impact. The discussion of significant cumulative impacts must include either of the following:

(1) A list of past, present, and probable future projects causing related or cumulative impacts including, if necessary, those projects outside the control of the District; or

(2) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or a plan for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Documents used in creating a summary of projections must be referenced and made available to the public.

When utilizing a list, as suggested above, factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined and the location and type of project. Location may be important, for example, when water quality impacts are involved since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.

Public Resources Code section 21094 also states that if a Lead Agency determines that a cumulative effect has been adequately addressed in an earlier EIR, it need not be examined in a later EIR if the later project's incremental contribution to the cumulative effect is not cumulatively considerable. A cumulative effect has been adequately addressed in the prior EIR if:

(1) it has been mitigated or avoided as a result of the prior EIR; or

(2) the cumulative effect has been examined in a sufficient level of detail to enable the effect to be mitigated or avoided by site-specific revisions, the imposition of conditions, or other means in connection with the approval of the later project.

Public Resources Code section 21094 only applies to earlier projects that (1) are consistent with the program, plan, policy, or ordinance for which an environmental impact report has been prepared and certified, (2) are consistent with applicable local land use plans and zoning of the city, county, or city and county in which the later project would be located and (3) are not subject to Public Resources Code section 21166.

If the Lead Agency determines that the cumulative effect has been adequately addressed in a prior EIR, the Lead Agency should clearly explain the basis for its determination in the current environmental documentation for the project.

The District should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.

(Reference: State CEQA Guidelines, § 15130.)

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7.22 ANALYSIS OF MITIGATION MEASURES.

The discussion of mitigation measures in an EIR must distinguish between measures proposed by project proponents and other measures proposed by Lead, Responsible or Trustee Agencies. This discussion shall identify mitigation measures for each significant environmental effect identified in the EIR.

Where several measures are available to mitigate an impact, each should be disclosed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures shall not be deferred until some future time The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the project's environmental review provided that the Lead Agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated in the mitigation measure. Compliance with a regulatory permit or other similar process may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards.

If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be disclosed but in less detail than the significant effects of the project itself.

If a project includes a housing development, the District may not reduce the project's proposed number of housing units as a mitigation measure or project alternative if the District determines that there is another feasible specific mitigation measure or project alternative that would provide a comparable level of mitigation without reducing the number of housing units.

Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments. In the case of the adoption of a plan, policy, regulation, or other public project, mitigation measures can be incorporated into the plan, policy, regulation, or project design. Mitigation measures must also be consistent with all applicable constitutional requirements such as the "nexus" and "rough proportionality" standards—i.e., there must be an essential nexus between the mitigation measure and a legitimate governmental interest, and the mitigation measure must be "roughly proportional" to the impacts of the project.

Where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of a historical resource will be conducted in a manner consistent with the Secretary of the Interior's "Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings" (1995), Weeks and Grimmer, the project's impact on the historical resource shall generally be considered mitigated below a level of significance and thus not significant.

The District should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following must be considered and discussed in an EIR for a project involving an archaeological site:

(a) Preservation in place is the preferred manner of mitigating impacts to archaeological sites; and

(b) Preservation in place may be accomplished by, but is not limited to, the following:

(1) Planning construction to avoid archaeological sites;

(2) Incorporation of sites within parks, green space, or other open spaces;

(3) Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site; and/or

(4) Deeding the site into a permanent conservation easement.

When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to excavation. Such studies must be deposited with the California Historical Resources Regional Information Center.

Data recovery shall not be required for a historical resource if the District determines that existing testing or studies have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center.

(Reference: State CEQA Guidelines, § 15126.4.)

7.23 ANALYSIS OF ALTERNATIVES IN AN EIR.

The alternatives analysis must describe and evaluate the comparative merits of a range of reasonable alternatives to the project or to the location of the project which would feasibly attain most of the basic objectives of the project, but which would avoid or substantially lessen any of the significant effects of the project. An EIR need not consider every conceivable alternative to a project, and it need not consider alternatives that are infeasible. Rather, an EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.

Purpose of the Alternatives Analysis: An EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment. For this reason, a discussion of alternatives must focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effect of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly.

Selection of a Range of Reasonable Alternatives: The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic purposes of the project and could avoid or substantially lessen one or more of the significant effects, even if those alternatives would be more costly or would impede to some degree the attainment of the project's objectives. The EIR should briefly describe the rationale for selecting the alternatives to

be discussed. The EIR should also identify any alternatives that were considered by the Lead Agency and rejected as infeasible during the scoping process, and it should briefly explain the reasons for rejecting those alternatives. Additional information explaining the choice of alternatives should be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (a) failure to meet most of the basic project objectives; (b) infeasibility; or (c) inability to avoid significant environmental impacts.

Evaluation of Alternatives: The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. The matrix may also identify and compare the extent to which each alternative meets project objectives. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed but in less detail than the significant effects of the project as proposed.

The Rule of Reason: The range of alternatives required in an EIR is governed by a "rule of reason" which courts have held means that an alternatives discussion must be reasonable in scope and content. Therefore, the EIR must set forth only those alternatives necessary to permit public participation, informed decision-making, and a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones the District determines could feasibly attain most of the basic objectives of the project. An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

Feasibility of Alternatives: The factors that may be taken into account when addressing the feasibility of alternatives include: site suitability; economic viability; availability of infrastructure; general plan consistency; other plans or regulatory limitations; jurisdictional boundaries (projects with a regionally significant impact should consider the regional context); and whether the proponent already owns the alternative site or can reasonably acquire, control or otherwise have access to the site. No one factor establishes a fixed limit on the scope of reasonable alternatives.

Alternative Locations: The first step in the alternative location analysis is to determine whether any of the significant effects of the project could be avoided or substantially lessened by putting the project in another location. This is the key question in this analysis. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.

The second step in this analysis is to determine whether any of the alternative locations are feasible. If the District concludes that no feasible alternative locations exist, it must disclose its reasons, and it should include them in the EIR. When a previous document has sufficiently analyzed a range of reasonable alternative locations and environmental impacts for a project with the same basic purpose, the District should review the previous document and incorporate the previous document by reference. To the extent the circumstances have remained substantially the

same with respect to an alternative, the EIR may rely on the previous document to help it assess the feasibility of the potential project alternative.

The "No Project" Alternative: The specific alternative of "no project" must be evaluated along with its impacts. The purpose of describing and analyzing the no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative may be different from the baseline environmental conditions. The no project alternative will be the same as the baseline only if it is identical to the existing environmental setting and the Lead Agency has chosen the existing environmental setting as the baseline.

A discussion of the "no project" alternative should proceed along one of two lines:

(a) When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the "no project" alternative will be the continuation of the existing plan, policy or operation into the future. Typically, this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan; or

(b) If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. This discussion would compare the environmental effects of the property remaining in its existing state against environmental effects that would occur if the project is approved. If disapproval of the project would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed.

After defining the "no project" alternative, the District should proceed to analyze the impacts of the "no project" alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the "no project" alternative is the environmentally superior alternative, the EIR must also identify another environmentally superior alternative among the remaining alternatives.

Remote or Speculative Alternatives: An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

(Reference: State CEQA Guidelines, § 15126.6.)

7.24 ANALYSIS OF FUTURE EXPANSION.

An EIR must include an analysis of the environmental effects of future expansion (or other similar future modifications) if there is credible and substantial evidence that:

(a) The future expansion or action is a reasonably foreseeable consequence of the initial project; and

(b) The future expansion or action is likely to change the scope or nature of the initial project or its environmental effects.

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Absent these two circumstances, future expansion of a project need not be discussed. CEQA does not require speculative discussion of future development that is unspecific or uncertain. However, if future action is not considered now, it must be considered and environmentally evaluated before it is actually implemented.

(Reference: *Laurel Heights Improvement Ass'n v. Regents of University of California* (1988) 47 Cal.3d 376, 396.)

7.25 NOTICE OF COMPLETION OF DRAFT EIR; NOTICE OF AVAILABILITY OF DRAFT EIR.

Notice of Completion. When the Draft EIR is completed, a Notice of Completion (Form "H") must be filed with the Office of Land Use and Climate Innovation ("LCI") in an electronic form via the LCI's CEQA Submit website, which is located at the following web address: https://ceqasubmit.lci.ca.gov/. The Notice of Completion shall contain:

(a) A brief description of the proposed project;
(b) The location of the proposed project including the proposed project's latitude and longitude;
(c) An address where copies of the Draft EIR are available and a description of how the Draft EIR can be provided in an electronic format; and
(d) The review period during which comments will be received on the Draft EIR.

The LCI has developed a model form Notice of Completion. Form H follows LCI's model. To ensure that the documents are accepted by LCI staff, this form should be used when documents are transmitted to State Clearinghouse.

Notice of Availability. At the same time it sends a Notice of Completion to LCI, the District shall provide public notice of the availability of the Draft EIR by distributing a Notice of Availability of Draft Environmental Impact Report (Form "K"). The Notice of Availability shall include at least the following information:

(a) A brief description of the proposed project and its location;
(b) The starting and ending dates for the review period during which the District will receive comments, the manner in which the District will receive those comments, and whether the review period has been shortened;
(c) The date, time, and place of any scheduled public meetings or hearings to be held by the District on the proposed project, if the District knows this information when it prepares the Notice;
(d) A list of the significant environmental effects anticipated as a result of the project;
(e) The address where copies of the EIR and all documents incorporated by reference in the EIR will be available for public review, and a description of how the Draft EIR can be obtained in electronic format. This location shall be readily accessible to the public during the District's normal working hours; and
(f) A statement indicating whether the project site is included on any list of hazardous waste facilities, land designated as hazardous waste property, or hazardous waste disposal site, and, if so, the information required in the Hazardous Waste and Substances Statement pursuant to Government Code section 65962.5.

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The Notice of Availability shall be provided to:

(a) Each Responsible and Trustee Agency;
(b) Any other federal, state, or local agency that has jurisdiction by law or exercises authority over resources affected by the project, including:

(1) Any water supply agency consulted under Local Guidelines Section 5.16;

(2) Any city or county bordering on the project area;

(3) For a project of statewide, regional, or area-wide significance, any transportation agencies or public agencies that have major local arterials or public transit facilities within five (5) miles of the project site; or freeways, highways, or rail transit service within ten (10) miles of the project site that could be affected by the project;

(4) For a subdivision project located within one mile of a facility of the State Water Resources Development System, the California Department of Water Resources; and

(5) For a general plan amendment, a project of statewide, regional, or area-wide significance, or a project that relates to a public use airport, to any "military service" (defined in Section 11.44 of these Local Guidelines) that has provided the District with its contact office and address and notified the District of the specific boundaries of a "low-level flight path" (defined in Section 11.38 of these Local Guidelines), "military impact zone" (defined in Section 11.43 of these Local Guidelines), or "special use airspace" (defined in Section 11.69 of these Local Guidelines);

(c) The last known name and address of all organizations and individuals who have previously filed a written request with the District to receive these Notices;
(d) For certain projects that may impact a low-level flight path, military impact zone, or special use airspace and that meet the other criteria of Local Guidelines Section 7.04, the specified military services contact;
(e) For certain projects that involve the construction or alteration of a facility anticipated to emit hazardous air emissions or handle hazardous substances within one-quarter mile of a school and that meet the other requirements of Local Guidelines Section 7.36, any potentially affected school district;
(f) For certain waste-burning projects that meet the requirements of Local Guidelines Section 5.11 (see also Local Guidelines Section 7.27), the owners and occupants of property within one-fourth mile of any parcel on which the project will be located; and
(g) For a project that establishes or amends a redevelopment plan that contains land in agricultural use, notice and a copy of the Draft EIR shall be provided to the agricultural and farm agencies and organizations specified in Health and Safety Code section 33333.3.

The District requires requests for copies of these Notices to be in writing and to be renewed annually; moreover, the District may charge a fee for the reasonable cost of providing these Notices. A project will not be invalidated due to a failure to send a requested Notice provided there has been substantial compliance with these notice provisions.

Staff may also consult with and obtain comments from any person known to have special expertise or any other person or organization whose comments relative to the Draft EIR would be desirable.

Notice shall be given to the last known name and address of all organizations and individuals who have previously requested notice; by posting the notice on the website of the lead agency; and by at least one of the following procedures:

(a) Publication of the Notice of Completion and/or the Notice of Availability at least once in a newspaper of general circulation in the area affected by the proposed project. If more than one area will be affected, the notice shall be published in the newspaper of largest circulation from among the newspapers of general circulation in those areas;
(b) Posting of the Notice of Completion and/or the Notice of Availability on and off site in the area where the project is to be located; or
(c) Direct mailing of the Notice of Completion and/or the Notice of Availability to owners and occupants of property contiguous to the project, as identified on the latest equalized assessment roll.

The Notice of Completion and Notice of Availability shall be posted in the office of the Clerk in each county in which the project is located for at least thirty (30) days. If the public review period for the Draft EIR is longer than thirty (30) days, the District may wish to leave the Notice posted until the public review period for the Draft EIR has expired.

Copies of the Draft EIR shall also be made available at the District office for review by members of the general public. The District may require any person obtaining a copy of the Draft EIR to reimburse the District for the actual cost of its reproduction. Copies of the Draft EIR should also be furnished to appropriate public library systems.

The District shall also post an electronic copy of the Notice of Completion, Notice of Availability, and Draft EIR on its website, if any.

(Reference: Pub. Resources Code, § 21082.1; State CEQA Guidelines, §§ 15085, 15087.)

7.26 SUBMISSION OF DRAFT EIR TO STATE CLEARINGHOUSE.

A Draft EIR must be submitted to the State Clearinghouse, at the same time as the Notice of Completion, in an electronic form as required by the Office of Land Use and Climate Innovation ("LCI"), regardless of whether the document must be circulated for review and comment by state agencies under State CEQA Guidelines section 15205 and 15206. The Draft EIR must be submitted via the LCI's CEQA Submit website (https://ceqasubmit.lci.ca.gov/). The CEQA Submit website differentiates between environmental documents that do require review and comment by state agencies and those that do not. In particular, the website provides a "Local Review Period" tab for submitting documents that do not require review and comment by state agencies, and a "State Review Period" tab for submitting documents that do require review and comment by state agencies.

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A Draft EIR must be submitted to the State Clearinghouse for review and comment by state agencies (i.e., the Draft EIR must be submitted through the CEQA Submit website under the "State Review Period" tab) in the following situations:

(a) A state agency is the Lead Agency for the Draft EIR;
(b) A state agency is a Responsible Agency, Trustee Agency, or otherwise has jurisdiction by law over resources potentially affected by the project; or
(c) The Draft EIR is for a project identified in State CEQA Guidelines section 15206 as being a project of statewide, regional, or area-wide significance.

State CEQA Guidelines section 15206 identifies the following types of projects as being examples of projects of statewide, regional, or area-wide significance that require submission to the State Clearinghouse for circulation:

(1) General plans, elements, or amendments for which an EIR was prepared;

(2) Projects that have the potential for causing significant environmental effects beyond the city or county where the project would be located, such as:

(a) Residential development of more than 500 units;
(b) Commercial projects employing more than 1,000 persons or covering more than 500,000 square feet of floor space;
(c) Office building projects employing more than 1,000 persons or covering more than 250,000 square feet of floor space;
(d) Hotel or motel development of more than 500 rooms; and
(e) Industrial projects housing more than 1,000 persons, occupying more than 40 acres of land, or covering more than 650,000 square feet of floor area;

(3) Projects for the cancellation of a Williamson Act contract covering more than 100 acres;

(4) Projects in one of the following Environmentally Sensitive Areas:

(a) Lake Tahoe Basin;
(b) Santa Monica Mountains Zone;
(c) Sacramento-San Joaquin River Delta;
(d) Suisun Marsh;
(e) Coastal Zone, as defined by the California Coastal Act;
(f) Areas within one-quarter mile of a river designated as wild and scenic; or
(g) Areas within the jurisdiction of the San Francisco Bay Conservation and Development Commission;

(5) Projects that would affect sensitive wildlife habitats or the habitats of any rare, threatened, or endangered species;

(6) Projects that would interfere with water quality standards; and

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(7) Projects that would provide housing, jobs, or occupancy for 500 or more people within 10 miles of a nuclear power plant.

A Draft EIR may also be submitted to the State Clearinghouse for review and comment by state agencies when a state agency has special expertise with regard to the environmental impacts involved.

Submission of the Draft EIR to the State Clearinghouse affects the timing of the public review period as set forth in Local Guidelines Section 7.28.

(Reference: Pub. Resources Code, § 21091; State CEQA Guidelines, §§ 15205, 15206.)

7.27 SPECIAL NOTICE REQUIREMENTS FOR WASTE- AND FUEL-BURNING PROJECTS.

For any waste-burning project, as defined in Local Guidelines Section 5.11, in addition to the notice requirements specified in Local Guidelines Sections 7.25 and 7.26, Notice of Availability of the Draft EIR shall be given by direct mailing or any other method calculated to provide delivery of the notice to the owners and occupants of property within one-fourth mile of any parcel or parcels on which the project is located.

(Reference: Pub. Resources Code, § 21092(c).)

7.28 TIME FOR REVIEW OF DRAFT EIR; FAILURE TO COMMENT.

A period of between thirty (30) and sixty (60) days from the filing of the Notice of Completion of the Draft EIR shall be allowed for review of and comment on the Draft EIR, except in unusual situations.

If the Draft EIR is for a proposed project where a state agency is the lead agency, a responsible agency, or a trustee agency; a state agency otherwise has jurisdiction by law with respect to the project; or the proposed project is of sufficient statewide, regional, or area-wide significance as determined pursuant to State CEQA Guidelines section 15206, the review period shall be at least forty-five (45) days (unless a shorter period is approved as set forth below), and the lead agency shall provide the document in an electronic form, as required by the LCI, to the State Clearinghouse for review and comment by state agencies.

For purposes of calculating the length of the public review period, the last day of the public review period cannot fall on a weekend, a legal holiday, or other day on which the lead agency's offices are closed.[2] (Reference: *Rominger v. County of Colusa* (2014) 229 Cal.App.4th 690, 708.)

If a state agency is a Responsible Agency, or if the Draft EIR is submitted to the State Clearinghouse for review and comment by state agencies, the public review period shall be at least as long as the review period established by the State Clearinghouse. The public review period and

[2] A public agency's "offices are closed" for purposes of this section on days in which the agency is formally closed for business (for example, due to a weekend, a legal holiday, or a formal furlough affecting the entire office). A public agency's office is not considered closed for purposes of this section where the agency's office may be physically closed, but the agency is nonetheless open for business and is operating remotely or virtually (for example, in response to the Covid-19 pandemic).

the state agency review period may, but are not required to, begin and end at the same time. The state agency review period begins (day one) on the date that the State Clearinghouse distributes the Draft EIR to state agencies. The State Clearinghouse is required to distribute the Draft EIR to state agencies within three (3) working days from the date the State Clearinghouse receives the document, as long as the Draft EIR is complete when submitted to the State Clearinghouse. If the document submitted to the State Clearinghouse is not complete, the State Clearinghouse must notify the Lead Agency. The review period for the public and all other agencies may run concurrently with the state agency review period established by the State Clearinghouse.

Under certain circumstances, a shorter review period of the Draft EIR by the State Clearinghouse can be requested by the District; however, a shortened review period shall not be less than thirty (30) days for a Draft EIR. Any request for a shortened review period must be made in writing by the District to LCI. The District may designate a person to make these requests. The District must contact all Responsible and Trustee agencies and obtain their agreement prior to obtaining a shortened review period. (See the Shortened Review Request Form "P.") A shortened review period is not available for any proposed project of statewide, regional or area-wide environmental significance as determined pursuant to State CEQA Guidelines section 15206. Any approval of a shortened review period shall be given prior to, and reflected in, the public notices.

In the event a public agency, group, or person whose comments on a Draft EIR are solicited fails to comment within the required time period, it shall be presumed that such agency, group, or person has no comment to make, unless the Lead Agency has received a written request for a specific extension of time for review and comment and a statement of reasons for the request.

Continued planning activities concerning the proposed project, short of formal approval, may continue during the period set aside for review and comment on the Draft EIR.

(Reference: Pub. Resources Code, § 21091; State CEQA Guidelines, §§ 15203, 15205(d).)

7.29 PUBLIC HEARING ON DRAFT EIR.

CEQA does not require formal public hearings for certification of an EIR; public comments may be restricted to written communications. (However, a hearing is required to utilize the limited exemption for Transit Priority Projects as explained in Local Guidelines Section 3.22; to adopt a bicycle transportation plan as explained in Local Guidelines Section 3.23; and for certain other actions involving the replacement or deletion of mitigation measures under State CEQA Guidelines section 15074.1.) However, if the District provides a public hearing on its consideration of a project, the District should include the project's environmental review documents as one of the subjects of the hearing. Notice of the time and place of the hearing shall be given in a timely manner in accordance with any legal requirements applicable to the proposed project. Generally, the requirements of the Ralph M. Brown Act will provide the minimum requirements for the inclusion of CEQA matters on agendas and at hearings. (Gov. Code, § 54950 et seq.) At a minimum, agendas for meetings and hearings before commissions, boards, councils, and other agencies must be posted in a location that is freely accessible to members of the public at least seventy-two (72) hours prior to a regular meeting. The agenda must contain a brief general description of each item to be discussed and the time and location of the meeting. (Gov. Code, § 54954.2.) Additionally, any legislative body or its presiding officer must post an agenda for

each regular or special meeting on the local agency's Internet Web site, if the local agency has one.

(Reference: State CEQA Guidelines, § 15202.)

7.30 RESPONSE TO COMMENTS ON DRAFT EIR.

The Lead Agency shall evaluate any comments on environmental issues received during the public review period for the Draft EIR and shall prepare a written response to those comments that raise significant environmental issues.

As stated below, the District, as Lead Agency, should also consider evaluating and responding to any comments received after the public review period. The written responses shall describe the disposition of any significant environmental issues that are raised in the comments. The responses may take the form of a revision of the Draft EIR, an attachment to the Draft EIR, or some other oral or written response that is adequate under the circumstances. If the District's position is at variance with specific recommendations or suggestions raised in the comment, the District's response must detail the reasons why such recommendations or suggestions were not accepted. The level of detail contained in the response, however, may correspond to the level of detail provided in the comment (i.e., responses to general comments may be general). A general response may be appropriate when a comment does not contain or specifically refer to readily available information, or does not explain the relevance of evidence submitted with the comment.

Moreover, the District shall respond to any specific suggestions for project alternatives or mitigation measures for significant impacts, unless such alternatives or mitigation measures are facially infeasible. The response shall contain recommendations, when appropriate, to alter the project as described in the Draft EIR as a result of an analysis of the comments received.

At least ten (10) days prior to certifying a Final EIR, the Lead Agency shall provide its proposed written response, either in printed copy or in an electronic format, to any public agency that has made comments on the Draft EIR during the public review period. The District, as Lead Agency, is not required to respond to comments received after the public review period. However, the District, as Lead Agency, should consider responding to all comments if it will not delay action on the Final EIR, since any comment received before final action on the EIR can form the basis of a legal challenge. A written response that addresses the comment or adequately explains the District's action in light of the comment may assist in defending against a legal challenge.

(Reference: State CEQA Guidelines, § 15088.)

7.31 PREPARATION AND CONTENTS OF FINAL EIR.

Following the receipt of any comments on the Draft EIR as required herein, such comments shall be evaluated by Staff and a Final EIR shall be prepared.

The Final EIR shall meet all requirements of Local Guidelines Section 7.18 and shall consist of the Draft EIR or a revision of the Draft, a section containing either verbatim or in summary the comments and recommendations received through the review and consultation process, a list of persons, organizations and public agencies commenting on the Draft, and a section

containing the responses of the District to the significant environmental points raised in the review and consultation process.

(Reference: State CEQA Guidelines, §§ 15089, 15132.)

7.32 RECIRCULATION WHEN NEW INFORMATION IS ADDED TO EIR.

When significant new information is added to the EIR after notice and consultation but before certification, the Lead Agency must recirculate the Draft EIR for another public review period. The term "information" can include changes in the project or environmental setting as well as additional data or other information.

New information is significant only when the EIR is changed in a way that would deprive the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of a project or a feasible way to mitigate or avoid such an effect, including a feasible project alternative, that the project proponents decline to implement. Recirculation is required, for example, when:

(1) New information added to an EIR discloses:

(a) A new significant environmental impact resulting from the project or from a new mitigation measure proposed to be implemented; or

(b) A significant increase in the severity of an environmental impact (unless mitigation measures are also adopted that reduce the impact to a level of insignificance); or

(c) A feasible project alternative or mitigation measure that clearly would lessen the significant environmental impacts of the project, but which the project proponents decline to adopt; or

(2) The Draft EIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Recirculation is not required when the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR. If the revision is limited to a few chapters or portions of the EIR, the District as Lead Agency need only recirculate the chapters or portions that have been modified. A decision to not recirculate an EIR must be supported by substantial evidence in the record.

When the District determines to recirculate a Draft EIR, it shall give Notice of Recirculation (Form "M") to every agency, person, or organization that commented on the prior Draft EIR. The Notice of Recirculation must indicate whether new comments must be submitted and whether the District has exercised its discretion to require reviewers to limit their comments to the revised chapters or portions of the recirculated EIR. The District shall also consult again with those persons contacted pursuant to Local Guidelines Section 7.25 before certifying the EIR. When the EIR is substantially revised and the entire EIR is recirculated, the District may require that reviewers submit new comments and need not respond to those comments received during the earlier circulation period. In those cases, the District should advise reviewers that, although their previous comments remain part of the administrative record, the final EIR will not provide a

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written response to those comments, and new comments on the revised EIR must be submitted. The District need only respond to those comments submitted in response to the revised EIR.

When the EIR is revised only in part and the District is recirculating only the revised chapters or portions of the EIR, the District may request that reviewers limit their comments to the revised chapters or portions. The District need only respond to: (1) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (2) comments received during the recirculation period that relate to the chapters or portions of the earlier EIR that were revised and recirculated.

When recirculating a revised EIR, either in whole or in part, the District must, in the revised EIR or by an attachment to the revised EIR, summarize the revisions made to the previously circulated draft EIR.

(Reference: State CEQA Guidelines, § 15088.5.)

7.33 CERTIFICATION OF FINAL EIR.

Following the preparation of the Final EIR, Staff shall review the Final EIR and make a recommendation to the decision-making body regarding whether the Final EIR has been completed in compliance with CEQA, the State CEQA Guidelines and the District's Local Guidelines. The Final EIR and Staff recommendation shall then be presented to the decision-making body. The decision-making body shall independently review and consider the information contained in the Final EIR and determine whether the Final EIR reflects its independent judgment. Before it approves the project, the decision-making body must certify and find that: (1) the Final EIR has been completed in compliance with CEQA, the State CEQA Guidelines and the District's Local Guidelines; (2) the Final EIR was presented to the decision-making body and the decision-making body reviewed and considered the information contained in the Final EIR before approving the project; and (3) the Final EIR reflects the District's independent judgment and analysis.

Except in those cases in which the Board of Directors is the final decision-making body for the project, any interested person may appeal the certification or denial of certification of a Final EIR to the Board of Directors. Appeals must follow the procedures prescribed by the District.

(Reference: State CEQA Guidelines, § 15090.)

7.34 CONSIDERATION OF EIR BEFORE APPROVAL OR DISAPPROVAL OF PROJECT.

Once the decision-making body has certified the EIR, it may then proceed to consider the proposed project for purposes of approval or disapproval.

(Reference: State CEQA Guidelines, § 15092.)

7.35 FINDINGS.

The decision-making body shall not approve or carry out a project if a completed EIR identifies one or more significant environmental effects of the project unless it makes one or more of the following written findings for each such significant effect, accompanied by a brief

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explanation of the rationale supporting each finding. For impacts that have been identified as potentially significant, the possible findings are:

(a) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment as identified in the Final EIR, such that the impact has been reduced to a less-than-significant level;
(b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the District. Such changes have been, or can and should be, adopted by that other agency; or
(c) Specific economic, legal, social, technological or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the Final EIR. The decision-making body must make specific written findings stating why it has rejected an alternative to the project as infeasible.

The findings required by this Section shall be supported by substantial evidence in the record. Measures identified and relied on to mitigate environmental impacts identified in the EIR to below a level of significance should be expressly adopted or rejected in the findings. The findings should include a description of the specific reasons for rejecting any mitigation measures or project alternatives identified in the EIR that would reduce the significant impacts of the project. Any mitigation measures that are adopted must be fully enforceable through permit conditions, agreements, or other measures.

If any of the proposed alternatives could avoid or lessen an adverse impact for which no mitigation measures are proposed, the District shall analyze the feasibility of such alternative(s). If the project is to be approved without including such alternative(s), the District shall find that specific economic, legal, social, technological or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the alternatives identified in the Final EIR and shall list such considerations before such approval.

The decision-making body shall not approve or carry out a project as proposed unless: (1) the project as approved will not have a significant effect on the environment; or (2) the project's significant environmental effects have been eliminated or substantially lessened (as determined through one or more of the findings indicated above), and any remaining unavoidable significant effects have been found acceptable because of facts and circumstances described in a Statement of Overriding Considerations (see Local Guidelines Section 7.37). Statements in the Draft EIR or comments on the Draft EIR are not determinative of whether the project will have significant effects.

When making the findings required by this Section, the District as Lead Agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which it based its decision.

(Reference: State CEQA Guidelines, § 15091.)

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7.36 SPECIAL FINDINGS REQUIRED FOR FACILITIES THAT MAY EMIT HAZARDOUS AIR EMISSIONS NEAR SCHOOLS.

Special procedural rules apply to projects involving the construction or alteration of a facility within one-quarter mile of a school when: (1) the facility might reasonably be anticipated to emit hazardous air emissions or to handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the threshold specified in Health and Safety Code section 25532(j); and (2) the emissions or substances may pose a health or safety hazard to persons who would attend or would be employed at the school. If the project meets both of those criteria, the Lead Agency may not certify an EIR or approve a Negative Declaration or Mitigated Negative Declaration unless it makes a finding that:

(a) The Lead Agency consulted with the affected school district or districts having jurisdiction over the school regarding the potential impact of the project on the school; and
(b) The school district was given written notification of the project not less than thirty (30) days prior to the proposed certification of the EIR or approval of the Negative Declaration or Mitigated Negative Declaration.

Implementation of this Local Guideline shall be consistent with the definitions and terms utilized in State CEQA Guidelines section 15186.

Additionally, in its role as a Responsible Agency, the District should be aware that for projects involving the acquisition of a school site or the construction of a secondary or elementary school by a school district, the Negative Declaration, Mitigated Negative Declaration, or EIR prepared for the project may not be adopted or certified unless there is sufficient information in the entire record to determine whether any boundary of the school site is within 500 feet of the edge of the closest traffic lane of a freeway or other busy traffic corridor.

If it is determined that the project involves the acquisition of a school site that is within 500 feet of the edge of the closest traffic lane of a freeway, or other busy traffic corridor, the Negative Declaration, Mitigated Negative Declaration, or EIR may not be adopted or certified unless the school board determines, through a health risk assessment pursuant to Section 44360(b)(2) of the Health and Safety Code and after considering any potential mitigation measures, that the air quality at the proposed project site does not present a significant health risk to pupils.

(Reference: State CEQA Guidelines, § 15186.)

7.37 STATEMENT OF OVERRIDING CONSIDERATIONS.

Before a project that has unmitigated significant adverse environmental effects can be approved, the decision-making body must adopt a Statement of Overriding Considerations. If the decision-making body finds in the Statement of Overriding Considerations that specific benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."

Accordingly, the Statement of Overriding Considerations allows the decision-making body to approve a project despite one or more unmitigated significant environmental impacts identified

in the Final EIR. A Statement of Overriding Considerations can be made only if feasible project alternatives or mitigation measures do not exist to reduce the environmental impact(s) to a level of insignificance and the benefits of the project outweigh the adverse environmental effect(s). The feasibility of project alternatives or mitigation measures is determined by whether the project alternative or mitigation measure can be accomplished within a reasonable period of time, taking into account economic, environmental, social, legal and technological factors.

Project benefits that are appropriate to consider in the Statement of Overriding Considerations include the economic, legal, environmental, technological and social value of the project. The District may also consider region-wide or statewide environmental benefits.

Substantial evidence in the entire record must justify the decision-making body's findings and its use of the Statement of Overriding Considerations. If the decision-making body makes a Statement of Overriding Considerations, the Statement must be included in the record of the project approval and it should be referenced in the Notice of Determination.

(Reference: State CEQA Guidelines, § 15093.)

7.38 MITIGATION MONITORING OR REPORTING PROGRAM FOR EIR.

When making findings regarding an EIR, the District must do all of the following:

(a) Adopt a reporting or monitoring program to assure that mitigation measures that are required to mitigate or avoid significant effects on the environment will be implemented by the project proponent or other responsible party in a timely manner, in accordance with conditions of project approval;
(b) Make sure all conditions and mitigation measures are feasible and fully enforceable through permit conditions, agreements, or other measures. Such permit conditions, agreements, and measures must be consistent with applicable constitutional requirements such as the "nexus" and "rough proportionality" standards established by case law; and
(c) Specify the location and the custodian of the documents which constitute the record of proceedings upon which the District based its decision in the resolution certifying the EIR.

There is no requirement that the reporting or monitoring program be circulated for public review; however, the District may choose to circulate it for public comments along with the Draft EIR. Any mitigation measures required to mitigate or avoid significant effects on the environment shall be adopted and made fully enforceable, such as by being imposed as conditions of project approval.

The adequacy of a mitigation monitoring program is determined by the "rule of reason." This means that a mitigation monitoring program does not need to provide every imaginable measure. It needs only to provide measures that are reasonably feasible and that are necessary to avoid significant impacts or to reduce the severity of impacts to a less-than-significant level.

The mitigation monitoring or reporting program shall be designed to assure compliance with the mitigation measures during the implementation and construction of the project. If a Responsible Agency or Trustee Agency has required that certain conditions be incorporated into the project, the District may request that agency to prepare and submit a proposed reporting or

monitoring program. The District shall also require that, prior to the close of the public review period for a Draft EIR, the Responsible or Trustee Agency submit detailed performance objectives for mitigation measures, or refer the District to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to the District by a Responsible or Trustee Agency shall be limited to measures that mitigate impacts to resources that are within the Responsible or Trustee Agency's authority.

When a project is of statewide, regional, or area-wide significance, any transportation information resulting from the reporting or monitoring program required to be adopted by the District shall be submitted to the regional transportation planning agency where the project is located and to the Department of Transportation. The transportation planning agency and the Department of Transportation are required by law to adopt guidelines for the submittal of these reporting or monitoring programs, so the District may wish to tailor its submittal to such guidelines.

Local agencies have the authority to levy fees sufficient to pay for this program. Therefore, the District may impose a program to charge project proponents fees to cover actual costs of program processing and implementation.

The District may delegate reporting or monitoring responsibilities to an agency or to a private entity that accepts the delegation; however, until mitigation measures have been completed, the District remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

The District may choose whether its program will monitor mitigation, report on mitigation, or both. "Reporting" is defined as a written compliance review that is presented to the Board or an authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. Reporting is suited to projects that have readily measurable or quantitative mitigation measures or that already involve regular review. "Monitoring" is generally an ongoing or periodic process of project oversight. Monitoring is suited to projects with complex mitigation measures that may exceed the expertise of the District to oversee, are expected to be implemented over a period of time, or require careful implementation to assure compliance.

At its discretion, the District may adopt standardized policies and requirements to guide individually adopted programs.

Standardized policies or requirements for monitoring and reporting may describe, but are not limited to:

(a) The relative responsibilities of various departments within the District for various aspects of the program;
(b) The responsibilities of the project proponent;
(c) Guidelines adopted by the District to govern preparation of programs;
(d) General standards for determining project compliance with the mitigation measures and related conditions of approval;

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(e) Enforcement procedures for noncompliance, including provisions for administrative appeal; and/or
(f) A process for informing the Board and staff of the relative success of mitigation measures and using those results to improve future mitigation measures.

When a project is of statewide, regional, or area-wide importance, any transportation information generated by a mitigation monitoring or reporting program must be submitted to the transportation planning agency in the region where the project is located, as well as to the Department of Transportation.

(Reference: State CEQA Guidelines, § 15097.)

7.39 NOTICE OF DETERMINATION.

After approval of a project for which the District is the Lead Agency, Staff shall cause a Notice of Determination (Form "F") to be prepared, filed, and posted. The Notice of Determination shall include the following information:

(a) An identification of the project, including its common name, where possible, and its location. If the Notice of Determination is filed with the State Clearinghouse, the State Clearinghouse identification number for the draft EIR shall be provided.
(b) A brief description of the project;
(c) The District's name and the applicant's name (if any). If different from the applicant, the Notice of Determination shall further provide, if applicable, the identity of the person undertaking the project that is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies, or the identity of the person receiving a lease, permit, license, certificate, or other entitlement for use from one or more public agencies.
(d) The date when the District approved the project;
(e) Whether the project in its approved form with mitigation will have a significant effect on the environment;
(f) A statement that an EIR was prepared and certified pursuant to the provisions of CEQA;
(g) Whether mitigation measures were made a condition of the approval of the project, and whether a mitigation monitoring plan/program was adopted;
(h) Whether findings were made and/or whether a Statement of Overriding Considerations was adopted for the project; and
(i) The address where a copy of the EIR (with comments and responses) and the record of project approval may be examined by the general public.

The Notice of Determination shall be filed within five (5) working days of project approval with both (1) the Clerk of each county in which the project will be located; and (2) the State Clearinghouse of the Office of Land Use and Climate Innovation. (To determine the fees that must be paid with the filing of the Notice of Determination, see Local Guidelines Section 7.42 and the Staff Summary of the CEQA Process.) The County Clerk is required to post the Notice of Determination within twenty-four (24) hours of receipt. The Notice must be posted in the office of the Clerk for a minimum of thirty (30) days. Thereafter, the Clerk shall return the notice to the

District with a notation of the period it was posted. The District shall retain the notice for not less than twelve (12) months.

The District, when acting as lead agency, must post its Notice of Determination for a project on its website, if any.

For projects with more than one phase, Staff shall file a Notice of Determination for each phase requiring a discretionary approval. The filing and posting of a Notice of Determination with the Clerk, and, if necessary, with the State Clearinghouse, usually starts a thirty (30) day statute of limitations on court challenges to the approval under CEQA. When separate notices are filed for successive phases of the same overall project, the thirty (30) day statute of limitation to challenge the subsequent phase begins to run when the second notice is filed. Failure to file the Notice may result in a one hundred eighty (180) day statute of limitations.

(Reference: Pub. Resources Code, §§ 21092.2, 21108; State CEQA Guidelines, § 15094.)

7.40 DISPOSITION OF A FINAL EIR.

The District shall file a copy of the Final EIR with the appropriate planning agency of any city or county where significant effects on the environment may occur. The District shall also retain one or more copies of the Final EIR as a public record for a reasonable period of time. Finally, for private projects, the District may require that the project applicant provide a copy of the certified Final EIR to each Responsible Agency.

(Reference: State CEQA Guidelines, § 15095.)

7.41 PRIVATE PROJECT COSTS.

For private projects, the person or entity proposing to carry out the project shall be charged a reasonable fee to recover the estimated costs incurred by the District in preparing, circulating, and filing the Draft and Final EIRs, as well as all publication costs incident thereto.

7.42 FILING FEES FOR PROJECTS THAT AFFECT WILDLIFE RESOURCES.

At the time a Notice of Determination for an EIR is filed with the County or Counties in which the project is located, a fee of $4,227.50then applicable fee, shall be paid to the Clerk for projects that will adversely affect fish or wildlife resources. These fees are collected by the Clerk on behalf of DFW.

Only one filing fee is required for each project unless the project is tiered or phased and separate environmental documents are prepared. For projects where Responsible Agencies file separate Notices of Determination, only the Lead Agency is required to pay the fee.

Note: County Clerks are authorized to charge a documentary handling fee for each project in addition to the Fish and Wildlife fees specified above. Refer to the Index in the Staff Summary to help determine the correct total amount of fees applicable to the project.

For private projects, the District should pass these costs on to the project applicant.

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No fees are required for projects with "no effect" on fish or wildlife resources or for certain projects undertaken by the DFW and implemented through a contract with a non-profit entity or local government agency. (See Local Guidelines Section 6.24 for more information regarding a "no effect" determination.)

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8. TYPES OF EIRS

8.01 EIRs Generally.

This chapter describes a number of examples of various EIRs tailored to different situations. All of these types of EIRs must meet the applicable requirements of Chapter 7 of these Local Guidelines.

8.02 Tiering.

(a) Tiering Generally.

"Tiering" refers to using the analysis of general matters contained in a previously certified broader EIR in later EIRs, Negative Declarations, or Mitigated Negative Declarations prepared for narrower projects. The later EIR, Negative Declaration, or Mitigated Negative Declaration may incorporate by reference the general discussions from the broader EIR and may concentrate solely on the issues specific to the later project.

An Initial Study shall be prepared for the later project and used to determine whether a previously certified EIR may be used and whether new significant effects should be examined. Tiering does not excuse the District from adequately analyzing reasonably foreseeable significant environmental effects of a project, nor does it justify deferring analysis to a later tier EIR, Negative Declaration, or Mitigated Negative Declaration. However, the level of detail contained in a first-tier EIR need not be greater than that of the program, plan, policy, or ordinance being analyzed. When the District is using the tiering process in connection with an EIR for a large-scale planning approval, such as a general plan or component thereof (e.g., an area plan, specific plan or community plan), the development of detailed, site-specific information may not be feasible. Such site-specific information can be deferred, in many instances, until such time as the Lead Agency prepares a future environmental document in connection with a project of a more limited geographical scale, as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand.

(b) Identifying New Significant Impacts.

When assessing whether there is a new significant cumulative effect for purposes of a subsequent tier environmental document, the Lead Agency shall consider whether the incremental effects of the project would be considerable when viewed in the context of past, present, and probable future projects.

A Lead Agency may use only a valid CEQA document as a first-tier document. Accordingly, the District, in its role as Lead Agency, should carefully review the first-tier environmental document to determine whether or not the statute of limitations for challenging the document has run. If the statute of limitations has not expired, the District should use the first-tier document with caution and pay careful attention to the legal status of the document. If the first-tier document is subsequently invalidated, any later environmental document may also be defective.

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(c) Infill Projects and Tiering.

Certain "infill" projects may tier off of a previously certified EIR. An "infill" project is defined as a project with residential, retail, and/or commercial uses, a transit station, a school, or a public office building. It must be located in an urban area on a previously developed site or on an undeveloped site that is surrounded by developed uses. The project must be either consistent with land use planning strategies that achieve greenhouse gas ("GHG") emission reduction targets, feature a small walkable community project, or where a sustainable communities or alternative planning strategy has not yet been adopted for the area, include a residential density of at least 20 units per acre or a floor area ratio of at least 0.75. The project must also meet a number of standards related to energy efficiency that are not yet defined but which SB 226 directs the Office of Land Use and Climate Innovation to prepare.

If an EIR was certified for a planning level decision by a city or county (such as a General Plan or Specific Plan), the scope of the CEQA review for a later "infill" project can be limited to those effects on the environment that: 1) are specific to the project or to the project site and were not addressed as significant effects in the prior EIR; or 2) substantial new information shows will be more significant than described in the prior EIR.

When a project meets the definition of "infill" and either of the above conditions exist but a Mitigated Negative Declaration cannot be adopted, then the subsequent EIR for such a project need not consider alternative locations, densities, and building intensities or growth-inducing impacts.

(d) Statement of Overriding Considerations.

A Lead Agency may also tier off of a previously prepared Statement of Overriding Considerations if certain conditions are met. (See Local Guidelines Section 7.37.)

(Reference: State CEQA Guidelines, § 15152.)

8.03 PROJECT EIR.

The most common type of EIR examines the environmental impacts of a specific development project and focuses primarily on the changes in the environment that would result from the development project. This type of EIR must examine all phases of the project, including planning, construction, and operation.

If the EIR for a redevelopment plan is a Project EIR, all public and private activities or undertakings pursuant to or in furtherance of the Redevelopment Plan shall constitute a single project, which shall be deemed approved at the time of the adoption of the Redevelopment Plan. Although the District will probably not act as a Lead Agency for a Redevelopment Plan, the District may act as a Responsible Agency.

(Reference: State CEQA Guidelines, §§ 15161, 15180.)

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8.04 SUBSEQUENT EIR.

A Subsequent EIR is required when a previous EIR has been prepared and certified, or a Negative Declaration or Mitigated Negative Declaration has been adopted, for a project and at least one of the three following situations occur:

(a) Substantial changes are proposed in the project which will require major revisions of a previous EIR due to the identification of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(b) Substantial changes occur with respect to the circumstances under which the project is to be undertaken which will require major revisions of a previous EIR due to the identification of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(c) New information, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration/Mitigated Negative Declaration was adopted, becomes available and shows any of the following:

(1) the project will have one or more significant effects not discussed in a previous EIR, Negative Declaration, or Mitigated Negative Declaration;

(2) significant effects previously examined will be substantially more severe than shown in a previous EIR;

(3) mitigation measures or alternatives previously found not to be feasible are in fact feasible and would substantially reduce one or more significant effects, but the project proponent declines to adopt the mitigation measures or alternatives; or

(4) mitigation measures or alternatives which were not considered in a previous EIR would substantially lessen one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

A Subsequent EIR must receive the same circulation and review as the previous EIR received. As a potential tool to determine whether a Subsequent EIR is required, see Form J-1 of these Local Guidelines.

In instances where the District is evaluating a modification or revision to an existing use permit, the District may consider only those environmental impacts related to the changes between what was allowed under the old permit and what is requested under the new permit. Only if these differential impacts fall within the categories described above may the District require additional environmental review.

When the District is considering approval of a development project that is consistent with a general plan for which an EIR was completed, another EIR is required only if the project causes environmental effects peculiar to the parcel which were not addressed in the prior EIR or substantial new information shows the effects peculiar to the parcel will be more significant than described in the prior EIR. (Reference: State CEQA Guidelines, § 15162.)

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8.05 SUPPLEMENTAL EIR.

The District may choose to prepare a Supplemental EIR, rather than a Subsequent EIR, if any of the conditions described in Local Guidelines Section 8.04 have occurred but only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. To assist the District in making this determination, the decision-making body should request an Initial Study and/or a recommendation by Staff. The Supplemental EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.

A Supplemental EIR shall be given the same kind of notice and public review as is given to a Draft EIR but may be circulated by itself without recirculating the previous EIR.

When the decision-making body decides whether to approve the project, it shall consider the previous EIR as revised by the Supplemental EIR. Findings shall be made for each significant effect identified in the Supplemental EIR.

(Reference: State CEQA Guidelines, § 15163.)

8.06 ADDENDUM TO AN EIR.

The District shall prepare an Addendum to a previously certified EIR, rather than a Subsequent or Supplemental EIR, only if changes or additions to the EIR are necessary, but none of the conditions described in Local Guidelines Section 8.04 or 8.05 calling for preparation of a Subsequent or Supplemental EIR have occurred. Since significant effects on the environment were addressed by findings in the original EIR, no new findings are required in the Addendum.

An Addendum to an EIR need not be circulated for public review but should be included in or attached to the Final EIR. The decision-making body shall consider the Addendum with the Final EIR prior to making a decision on a project. A brief explanation of the decision not to prepare a Subsequent EIR or a Supplemental EIR should be included in the Addendum, the Lead Agency's findings on the project, or elsewhere in the record. This explanation must be supported by substantial evidence.

(Reference: State CEQA Guidelines, § 15164.)

8.07 STAGED EIR.

When a large capital project will require a number of discretionary approvals from governmental agencies and one of the approvals will occur more than two years before construction will begin, a Staged EIR may be prepared. The Staged EIR covers the entire project in a general form or manner. A Staged EIR should evaluate a proposal in light of current and contemplated plans and produce an informed estimate of the environmental consequences of an entire project. The particular aspect of the project before the District for approval shall be discussed with a greater degree of specificity.

When a Staged EIR has been prepared, a Supplemental EIR shall be prepared when a later approval is required for the project and the information available at the time of the later approval

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would permit consideration of additional environmental impacts, mitigation measures, or reasonable alternatives to the project.

(Reference: State CEQA Guidelines, § 15167.)

8.08 PROGRAM EIR.

A Program EIR is an EIR that may be prepared on an integrated series of actions that are related either:

(a) Geographically;
(b) As logical parts in a chain of contemplated actions;
(c) In connection with the issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program; or
(d) As individual projects carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects that can be mitigated in similar ways.

An advantage of using a Program EIR is that it can "[a]llow the Lead Agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." (State CEQA Guidelines section 15168(b)(4).) A Program EIR is distinct from a Project EIR, as a Project EIR is prepared for a specific project and must examine in detail site-specific considerations. Program EIRs are commonly used in conjunction with the process of tiering.

Tiering is the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs. (State CEQA Guidelines section 15385; see also Local Guidelines Sections 8.02 and 11.75.) Tiering is proper "when it helps a public agency to focus upon the issues ripe for decision at each level of environmental review and in order to exclude duplicative analysis of environmental effects examined in previous environmental impact reports." (Pub. Resources Code, § 21093(a).) For example, the California Supreme Court has ruled that "CEQA does not mandate that a first-tier program EIR identify with certainty particular sources of water for second-tier projects that will be further analyzed before implementation during later stages of the program. Rather, identification of specific sources is required only at the second-tier stage when specific projects are considered." (*In re Bay-Delta etc.* (2008) 43 Cal. 4th 1143.)

Subsequent activities in the program must be examined in light of the Program EIR to determine whether additional environmental documents must be prepared. Additional environmental review documents must be prepared if the proposed later project may arguably cause significant adverse effects on the environment.

(Reference: State CEQA Guidelines, § 15168.)

8.09 USE OF A PROGRAM EIR WITH SUBSEQUENT EIRS AND NEGATIVE DECLARATIONS.

A Program EIR can be used to simplify the task of preparing environmental documents on later activities in the program. The Program EIR can:

(a) Provide the basis for an Initial Study to determine whether the later activity may have any significant effects;
(b) Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives and other factors that apply to the program as a whole; or
(c) Focus an EIR on a later activity to permit discussion solely of new effects which had not been considered before.

If a Program EIR is prepared for a redevelopment plan, subsequent activities in the redevelopment program will be subject to review if they would have effects that were not examined in the Program EIR. Where the later activities involve site-specific operations, the District should use a written checklist or similar device to document the evaluation of the site and the proposed activity to determine whether the environmental effects of the operation were within the scope of the Program EIR. If a later activity would have effects that were not examined in the Program EIR, a new Initial Study would need to be prepared leading to an EIR, Negative Declaration, or Mitigated Negative Declaration. That later analysis may tier from the Program EIR as provided in State CEQA Guidelines section 15152.

If the District finds that no Subsequent EIR would be required, the District can approve the activity as being within the scope of the project covered by the Program EIR, and no new environmental document is required. (See Local Guidelines Section 8.04.) Whether a later activity is within the scope of a Program EIR is a factual question that the Lead Agency determines based on substantial evidence in the record. Factors that the Lead Agency may consider in making that determination include, but are not limited to, consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed for environmental impacts, and covered infrastructure, as described in the Program EIR.

(Reference: State CEQA Guidelines, § 15168.)

8.10 USE OF AN EIR FROM AN EARLIER PROJECT.

A single EIR may be used to describe more than one project when the projects involve substantially identical environmental impacts. Any environmental impacts peculiar to one of the projects must be separately set forth and explained.

(Reference: State CEQA Guidelines, § 15165.)

8.11 MASTER EIR.

A Master EIR is an EIR which may be prepared for:

(a) A general plan (including elements and amendments);
(b) A specific plan;
(c) A project consisting of smaller individual projects to be phased;
(d) A regulation to be implemented by subsequent projects;
(e) A project to be carried out pursuant to a development agreement;
(f) A project pursuant to or furthering a redevelopment plan;
(g) A state highway or mass transit project subject to multiple reviews or approvals; or

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(h) A regional transportation plan or congestion management plan.

A Master EIR must do both of the following:

(a) Describe and present sufficient information about anticipated subsequent projects within its scope, including their size, location, intensity, and scheduling; and
(b) Preliminarily describe potential impacts of anticipated subsequent projects for which insufficient information is available to support a full impact assessment.

The District and Responsible Agencies identified in the Master EIR may use the Master EIR to limit environmental review of subsequent projects. However, the Lead Agency for the subsequent project must prepare an Initial Study to determine whether the subsequent project and its significant environmental effects were included in the Master EIR. If the Lead Agency for the subsequent project finds that the subsequent project will have no additional significant environmental effect and that no new mitigation measures or alternatives may be required, it may prepare written findings to that effect without preparing a new environmental document. When the Lead Agency makes this finding, it must provide public notice of the availability of its proposed finding for public review and comment in the same manner as if it were providing public notice of the availability of a draft EIR. (See Sections 15177(d) and 15087 of the State CEQA Guidelines and Section 7.25 of these Local Guidelines.)

A previously certified Master EIR cannot be relied upon to limit review of a subsequent project if:

(a) A project not identified in the certified Master EIR has been approved and that project may affect the adequacy of the Master EIR for the subsequent project now under consideration; or
(b) The Master EIR was certified more than five (5) years before the filing of an application for the subsequent project, unless the District reviews the adequacy of the Master EIR and:

(1) Finds that, since the Master EIR was certified, no substantial changes have occurred that would cause the subsequent project to have significant environmental impacts, and there is no new information that the subsequent project would have significant environmental impacts; or

(2) Prepares an Initial Study and either certifies a Subsequent or Supplemental EIR or adopts a Mitigated Negative Declaration that addresses any substantial changes or new information that would cause the subsequent project to have potentially significant environmental impacts. The certified subsequent or supplemental EIR must either be incorporated into the previously certified Master EIR or the District must identify any deletions, additions or other modifications to the previously certified Master EIR in the new document. The District may include a section in the subsequent or supplemental EIR that identifies these changes to the previously certified Master EIR.

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When the Lead Agency cannot find that the subsequent project will have no additional significant environmental effect and no new mitigation measures or alternatives will be required, it must prepare either a Mitigated Negative Declaration or an EIR for the subsequent project.

(Reference: State CEQA Guidelines, § 15175.)

8.12 FOCUSED EIR.

A Focused EIR is an EIR for a subsequent project identified in a Master EIR. It may be used only if the District finds that the Master EIR's analysis of cumulative, growth-inducing, and irreversible significant environmental effects is adequate for the subsequent project. The Focused EIR must incorporate by reference the Master EIR.

The Focused EIR must analyze additional significant environmental effects not addressed in the Master EIR and any new mitigation measures or alternatives not included in the Master EIR. "Additional significant effects on the environment" means those project-specific effects on the environment that were not addressed as significant effects on the environment in the Master EIR.

The Focused EIR must also examine the following:

(a) Significant effects discussed in the Master EIR for which substantial new information exists that shows those effects may be more significant than described in the Master EIR;
(b) Those mitigation measures found to be infeasible in the Master EIR for which substantial new information exists that shows the effects may be more significant than described in the Master EIR; and
(c) Those mitigation measures found to be infeasible in the Master EIR for which substantial new information exists that shows those measures may now be feasible.

The Focused EIR need not examine the following effects:

(a) Those that were mitigated through Master EIR mitigation measures; or
(b) Those that were examined in the Master EIR in sufficient detail to allow project-specific mitigation or for which mitigation was found to be the responsibility of another agency.

A Focused EIR may be prepared for a multifamily residential project not exceeding 100 units or a mixed use residential project not exceeding 100,000 square feet even though the project was not identified in a Master EIR, if the following conditions are met:

(a) The project is consistent with a general plan, specific plan, community plan, or zoning ordinance for which an EIR was prepared within five (5) years of the Focused EIR's certification;
(b) The project does not require the preparation of a Subsequent or Supplemental EIR; and
(c) The parcel is surrounded by immediately contiguous urban development, was previously developed with urban uses, or is within one-half mile of a rail transit station.

A Focused EIR for these projects should be limited to potentially significant effects that are project-specific and/or which substantial new information shows will be more significant than

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described in the Master EIR. No discussion shall be required of alternatives to the project, cumulative impacts of the project, or the growth-inducing impacts of the project.

(Reference: State CEQA Guidelines, § 15179.5.)

8.13 SPECIAL REQUIREMENTS FOR REDEVELOPMENT PROJECTS.

An EIR for a redevelopment plan may be a Master EIR, Program EIR or Project EIR. An EIR for a redevelopment plan must specify whether it is a Master EIR, a Program EIR or a Project EIR. Normally, the District will not be a Lead Agency for a redevelopment plan. However, if the District is a Responsible Agency on such a project, the District should endeavor to ensure that the county and/or applicable city as the case may be, as Lead Agency, analyzes these impacts in accordance with CEQA.

If a Program EIR is prepared for a redevelopment plan, subsequent activities in the redevelopment program will be subject to review if they would have effects that were not examined in the Program EIR. The Lead Agency should use a written checklist or similar device to document the evaluation of the site and the proposed activity to determine whether the environmental effects of the operation were indeed covered in the Program EIR. If the Lead Agency finds that no new effects could occur, no new mitigation measures would be required or that State CEQA Guidelines sections 15162 and 15163 do not otherwise apply, the Lead Agency can approve the activity as being within the scope of the project covered by the Program EIR, and no new environmental document is required.

If the EIR for a redevelopment plan is a Project EIR, all public and private activities or undertakings pursuant to or in furtherance of the Redevelopment Plan shall constitute a single project, which shall be deemed approved at the time of the adoption of the Redevelopment Plan. Once certified, no subsequent EIRs will be needed unless required by State CEQA Guidelines sections 15162 or 15163. If a Master EIR is prepared for a redevelopment plan, subsequent projects will be subject to review if they would have effects that were not examined in the Master EIR. If no new effects could occur or no new mitigation measures would be required, the Lead Agency can approve the activity as being within the scope of the project covered by the Master EIR, and no new environmental document is required.

(Reference: State CEQA Guidelines, § 15180.)

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9. AFFORDABLE HOUSING

9.01 STREAMLINED, MINISTERIAL APPROVAL PROCESS FOR AFFORDABLE HOUSING PROJECTS

The legislature has provided reforms and incentives to facilitate and expedite the approval and construction of affordable housing.

(a) An applicant may submit an application for a development that is subject to the streamlined, ministerial approval process and is not subject to a conditional use permit or any other non-legislative discretionary approval if the development satisfies all of the following objective planning standards:

(i) The development is a multifamily housing development that contains two or more residential units.

(ii) The development is located on a site that satisfies the following:

(A) A site that is a legal parcel or parcels located in a city if, and only if, the city boundaries include some portion of either an urbanized area or urban cluster, as designated by the United States Census Bureau, or, for unincorporated areas, a legal parcel or parcels wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.

(B) A site in which at least 75 percent of the perimeter of the site adjoins parcels that are developed with urban uses. For the purposes of this section, parcels that are only separated by a street or highway shall be considered to be adjoined.

(C)(1) A site that meets the requirements of clause (2) and satisfies any of the following:

(I) The site is zoned for residential use or residential mixed-use development.

(II) The site has a general plan designation that allows residential use or a mix of residential and nonresidential uses.

(III) The site is zoned for office or retail commercial use and meets the requirements of Gov. Code section 65852.24.

(2) At least two-thirds of the square footage of the development designated for residential use. Additional density, floor area, and units, and any other concession, incentive, or waiver of development standards granted pursuant to the Density Bonus Law in Government Code section 65915 shall be included in the square footage calculation. The square footage of the development shall not include underground space, such as basements or underground parking garages.

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(iii) If the development contains units that are subsidized, the development proponent already has recorded, or is required by law to record, a land use restriction or covenant providing that any lower or moderate income housing units required pursuant to subparagraph B of Paragraph (iv) of this Subsection shall remain available at affordable housing costs or rent to persons and families of lower or moderate income for the following applicable minimum durations:

(A) Fifty-five years for units that are rented.

(B) Forty-five years for units that are owned.

(iv) The development satisfies subparagraphs (A) and (B) below:

(A) The development is located in a locality that the department has determined is subject to this subparagraph on the basis that the number of units that have been issued building permits, as shown on the most recent production report received by the department, is less than the locality's share of the regional housing needs, by income category, for that reporting period. A locality shall remain eligible under this subparagraph until the department's determination for the next reporting period. A locality shall be subject to this subparagraph if it has not submitted an annual housing element report to the department pursuant to paragraph (2) of subdivision (a) of Section 65400 for at least two consecutive years before the development submitted an application for approval under this section.

(B) The development is subject to a requirement mandating a minimum percentage of below market rate housing based on one of the following:

(1) The locality did not submit its latest production report to the department by the time period required by Government Code section 65400, or that production report reflects that there were fewer units of above moderate-income housing approved than were required for the regional housing needs assessment cycle for that reporting period. In addition, if the project contains more than 10 units of housing, the project does either of the following:

A. The project dedicates a minimum of 10 percent of the total number of units, before calculating any density bonus, to housing affordable to households making at or below 80 percent of the area median income. However, if the locality has adopted a local ordinance that requires that greater than 10 percent of the units be dedicated to housing affordable to households making below 80 percent of the area median income, that local ordinance applies.

B. If the project is located within the San Francisco Bay area, the project, in lieu of complying with subclause (A),

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dedicates 20 percent of the total number of units, before calculating any density bonus, to housing affordable to households making below 120 percent of the area median income with the average income of the units at or below 100 percent of the area median income. However, a local ordinance adopted by the locality applies if it requires greater than 20 percent of the units be dedicated to housing affordable to households making at or below 120 percent of the area median income, or requires that any of the units be dedicated at a level deeper than 120 percent. In order to comply with this subclause, the rent or sale price charged for units that are dedicated to housing affordable to households between 80 percent and 120 percent of the area median income shall not exceed 30 percent of the gross income of the household. For purposes of this subclause, "San Francisco Bay area" means the entire area within the territorial boundaries of the Counties of Alameda, Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano, and Sonoma, and the City and County of San Francisco.

(2) The locality did not submit its latest production report to the department by the time period required by Government Code section 65400, or that production report reflects that there were fewer units of housing affordable to households making at or below 80 percent of the area median income that were issued building permits than were required for the regional housing needs assessment cycle for that reporting period, and the project seeking approval dedicates 50 percent of the total number of units, before calculating any density bonus, to housing affordable to households making at or below 80 percent of the area median income. However, if the locality has adopted a local ordinance that requires that greater than 50 percent of the units be dedicated to housing affordable to households making at or below 80 percent of the area median income, that ordinance applies.

(3) The locality did not submit its latest production report to the department by the time period required by Government Code section 65400, or if the production report reflects that there were fewer units of housing affordable to any income level described in clause (i) or (ii) that were issued building permits than were required for the regional housing needs assessment cycle for that reporting period, the project seeking approval may choose between utilizing clause (i) or (ii).

(C)(i) A development proponent that uses a unit of affordable housing to satisfy the requirements of subparagraph (B) may also satisfy any other local or state requirement for affordable housing, including local ordinances or the Density Bonus Law in Government Code section 65915, provided that the development proponent complies with the applicable requirements in the state or local law.

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(C)(ii) A development proponent that uses a unit of affordable housing to satisfy any other state or local affordability requirement may also satisfy the requirements of subparagraph (B), provided that the development proponent complies with applicable requirements of subparagraph (B).

(C)(iii) A development proponent may satisfy the affordability requirements of subparagraph (B) with a unit that is restricted to households with incomes lower than the applicable income limits required in subparagraph (B).

(v) The development, excluding any additional density or any other concessions, incentives, or waivers of development standards granted pursuant to the Density Bonus Law in Government Code section 65915, is consistent with objective zoning standards and objective design review standards in effect at the time that the development is submitted to the local government pursuant to this section. For purposes of this paragraph, "objective zoning standards" and "objective design review standards" mean standards that involve no personal or subjective judgment by a public official and are uniformly verifiable by reference to an external and uniform benchmark or criterion available and knowable by both the development applicant or proponent and the public official prior to submittal. These standards may be embodied in alternative objective land use specifications adopted by a city or county, and may include, but are not limited to, housing overlay zones, specific plans, inclusionary zoning ordinances, and density bonus ordinances, subject to the following:

(A) A development shall be deemed consistent with the objective zoning standards related to housing density, as applicable, if the density proposed is compliant with the maximum density allowed within that land use designation, notwithstanding any specified maximum unit allocation that may result in fewer units of housing being permitted.

(B) In the event that objective zoning, general plan, or design review standards are mutually inconsistent, a development shall be deemed consistent with the objective zoning standards pursuant to this section if the development is consistent with the standards set forth in the general plan.

(C) A project that satisfies the requirements of Government Code section 65852.24 shall be deemed consistent with objective zoning standards, objective design standards, and objective subdivision standards if the project is consistent with the provisions of subdivision (b) of Government Code section 65852.24 and if none of the square footage in the project is designated for hotel, motel, bed and breakfast inn, or other transient lodging use, except for a residential hotel. For purposes of this subdivision, "residential hotel" shall have the same meaning as defined in Section 50519 of the Health and Safety Code.

(vi) The development is not located on a site that is any of the following:

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(A) A coastal zone, as defined in Division 20 (commencing with Section 30000) of the Public Resources Code.

(B) Either prime farmland or farmland of statewide importance, as defined pursuant to United States Department of Agriculture land inventory and monitoring criteria, as modified for California, and designated on the maps prepared by the Farmland Mapping and Monitoring Program of the Department of Conservation, or land zoned or designated for agricultural protection or preservation by a local ballot measure that was approved by the voters of that jurisdiction.

(C) Wetlands, as defined in the United States Fish and Wildlife Service Manual.

(D) Within a very high fire hazard severity zone, as determined by the Department of Forestry and Fire Protection pursuant to Section 51178, or within a high or very high fire hazard severity zone as indicated on maps adopted by the Department of Forestry and Fire Protection pursuant to Section 4202 of the Public Resources Code. This subparagraph does not apply to sites excluded from the specified hazard zones by a local agency, pursuant to subdivision (b) of Government Code section 51179, or sites that have adopted fire hazard mitigation measures pursuant to existing building standards or state fire mitigation measures applicable to the development.

(E) A hazardous waste site that is listed pursuant to Government Code section 65962.5 or a hazardous waste site designated by the Department of Toxic Substances Control pursuant to Section 25356 of the Health and Safety Code, unless either of the following apply:

(i) The site is an underground storage tank site that received a uniform closure letter issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code based on closure criteria established by the State Water Resources Control Board for residential use or residential mixed uses. This section does not alter or change the conditions to remove a site from the list of hazardous waste sites listed pursuant to Government Code section 65962.5; or

(ii) The State Department of Public Health, State Water Resources Control Board, Department of Toxic Substances Control, or a local agency making a determination pursuant to subdivision (c) of Section 25296.10 of the Health and Safety Code, has otherwise determined that the site is suitable for residential use or residential mixed uses.

(F) Within a delineated earthquake fault zone as determined by the State Geologist in any official maps published by the State Geologist, unless the

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development complies with applicable seismic protection building code standards adopted by the California Building Standards Commission under the California Building Standards Law, Health and Safety Code section 18901, and by any local building department under Chapter 12.2 (commencing with Section 8875) of Division 1 of Title 2 of the Government Code.

(G) Within a flood plain as determined by maps promulgated by the Federal Emergency Management Agency, unless the development has been issued a flood plain development permit pursuant to Code of Federal Regulations section 59.1.

(H) Within a floodway as determined by maps promulgated by the Federal Emergency Management Agency, unless the development has received a no-rise certification in accordance with Code of Federal Regulations section 60.3(d)(3).

(I) Lands identified for conservation in an adopted natural community conservation plan pursuant to the Natural Community Conservation Planning Act, Fish and Game Code section 2800, habitat conservation plan pursuant to the federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.), or other adopted natural resource protection plan.

(J) Habitat for protected species identified as candidate, sensitive, or species of special status by state or federal agencies, fully protected species, or species protected by the federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.), the California Endangered Species Act, Fish and Game Code section 2050, or the Native Plant Protection Act, Fish and Game Code section 1900.

(K) Lands under conservation easement.

(vii) The development is not located on a site where any of the following apply:

(A) The development would require the demolition of the following types of housing:

(1) Housing that is subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income.

(2) Housing that is subject to any form of rent or price control through a public entity's valid exercise of its police power.

(3) Housing that has been occupied by tenants within the past 10 years.

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(B) The site was previously used for housing that was occupied by tenants that was demolished within 10 years before the development proponent submits an application under this section.

(C) The development would require the demolition of a historic structure that was placed on a national, state, or local historic register.

(D) The property contains housing units that are occupied by tenants, and units at the property are, or were, subsequently offered for sale to the general public by the subdivider or subsequent owner of the property.

(viii) The applicant has done both of the following, as applicable:

(A) Certified to the locality that either of the following is true, as applicable:

(1) The entirety of the development is a public work for purposes of Labor Code section 1720.

(2) If the development is not in its entirety a public work, that all construction workers employed in the execution of the development will be paid at least the general prevailing rate of per diem wages for the type of work and geographic area, as determined by the Director of Industrial Relations pursuant to Labor Code sections 1773 and 1773.9, except that apprentices registered in programs approved by the Chief of the Division of Apprenticeship Standards may be paid at least the applicable apprentice prevailing rate. If the development is subject to this subparagraph, then for those portions of the development that are not a public work all of the following shall apply:

(I) The development proponent shall ensure that the prevailing wage requirement is included in all contracts for the performance of the work.

(II) All contractors and subcontractors shall pay to all construction workers employed in the execution of the work at least the general prevailing rate of per diem wages, except that apprentices registered in programs approved by the Chief of the Division of Apprenticeship Standards may be paid at least the applicable apprentice prevailing rate.

(III) Except as provided in subsection (V), all contractors and subcontractors shall maintain and verify payroll records pursuant to Labor Code section 1776 and make those records available for inspection and copying as provided in therein.

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(IV) Except as provided in subsection (V), the obligation of the contractors and subcontractors to pay prevailing wages may be enforced by the Labor Commissioner through the issuance of a civil wage and penalty assessment pursuant to Labor Code section 1741, which may be reviewed pursuant to Labor Code section 1742, within 18 months after the completion of the development, by an underpaid worker through an administrative complaint or civil action, or by a joint labor-management committee through a civil action under Labor Code section 1771.2. If a civil wage and penalty assessment is issued, the contractor, subcontractor, and surety on a bond or bonds issued to secure the payment of wages covered by the assessment shall be liable for liquidated damages pursuant to Labor Code section 1742.1.

(V) Subsections (III) and (IV) shall not apply if all contractors and subcontractors performing work on the development are subject to a project labor agreement that requires the payment of prevailing wages to all construction workers employed in the execution of the development and provides for enforcement of that obligation through an arbitration procedure. For purposes of this clause, "project labor agreement" has the same meaning as set forth in Public Contract Code section 2500(b)(1).

(VI) Notwithstanding Labor Code section 1773.1, subdivision (c), the requirement that employer payments not reduce the obligation to pay the hourly straight time or overtime wages found to be prevailing shall not apply if otherwise provided in a bona fide collective bargaining agreement covering the worker. The requirement to pay at least the general prevailing rate of per diem wages does not preclude use of an alternative workweek schedule adopted pursuant to Labor Code section 511 or 514.

(B)(1) For developments for which any of the following conditions apply, certified that a skilled and trained workforce shall be used to complete the development if the application is approved:

(I) On and after January 1, 2018, until December 31, 2021, the development consists of 75 or more units that are not 100 percent subsidized affordable housing and will be located within a jurisdiction located in a coastal or bay county with a population of 225,000 or more.

(II) On and after January 1, 2023, until December 31, 2025, the development consists of 50 or more units that are not 100 percent subsidized affordable housing and will be located within a

jurisdiction located in a coastal or bay county with a population of 225,000 or more.

(III) On and after January 1, 2018, until December 31, 2019, the development consists of 75 or more units that are not 100 percent subsidized affordable housing and will be located within a jurisdiction with a population of fewer than 550,000 and that is not located in a coastal or bay county.

(IV) On and after January 1, 2020, until December 31, 2021, the development consists of more than 50 units and will be located within a jurisdiction with a population of fewer than 550,000 and that is not located in a coastal or bay county.

(V) On and after January 1, 2023, until December 31, 2025, the development consists of more than 25 units and will be located within a jurisdiction with a population of fewer than 550,000 and that is not located in a coastal bay county.

(2) For purposes of this section, "skilled and trained workforce" has the same meaning as provided in the Public Contract Code section 2600.

(3) If the development proponent has certified that a skilled and trained workforce will be used to complete the development and the application is approved, the following shall apply:

(I) The applicant shall require in all contracts for the performance of work that every contractor and subcontractor at every tier will individually use a skilled and trained workforce to complete the development.

(II) Every contractor and subcontractor shall use a skilled and trained workforce to complete the development.

(III) Except as provided in subdivision (IV), the applicant shall provide to the locality, on a monthly basis while the development or contract is being performed, a report demonstrating compliance with Public Contract Code section 2600. A monthly report provided to the locality pursuant to this subclause shall be a public record under the California Public Records Act (Government Code section 7920.000, et seq.) and shall be open to public inspection. An applicant that fails to provide a monthly report demonstrating compliance with Public Contract Code section 2600 shall be subject to a civil penalty of ten thousand dollars ($10,000) per month for each month for which the report has not been provided. Any contractor or subcontractor that fails to use a skilled

and trained workforce shall be subject to a civil penalty of two hundred dollars ($200) per day for each worker employed in contravention of the skilled and trained workforce requirement. Penalties may be assessed by the Labor Commissioner within 18 months of completion of the development using the same procedures for issuance of civil wage and penalty assessments pursuant to Labor Code section 1741, and may be reviewed pursuant to the same procedures in Labor Code section 1742. Penalties shall be paid to the State Public Works Enforcement Fund.

(IV) Subdivision (III) shall not apply if all contractors and subcontractors performing work on the development are subject to a project labor agreement that requires compliance with the skilled and trained workforce requirement and provides for enforcement of that obligation through an arbitration procedure. For purposes of this subparagraph, "project labor agreement" has the same meaning as set forth in Public Contract Code section 2500(b)(1).

(C) Notwithstanding subparagraphs (A) and (B) above, a development that is subject to approval pursuant to this section is exempt from any requirement to pay prevailing wages or use a skilled and trained workforce if it meets both of the following:

(1) The project includes 10 or fewer units.

(2) The project is not a public work for purposes of Labor Code section 1720.

(ix) The development did not or does not involve a subdivision of a parcel that is, or, notwithstanding this section, would otherwise be, subject to the Subdivision Map Act (Government Code section 66410, et seq.) or any other applicable law authorizing the subdivision of land, unless either of the following apply:

(A) The development has received or will receive financing or funding by means of a low-income housing tax credit and is subject to the requirement that prevailing wages be paid pursuant to subparagraph (A) of paragraph (viii).

(B) The development is subject to the requirement that prevailing wages be paid, and a skilled and trained workforce used, pursuant to paragraph (h).

(x) The development shall not be upon an existing parcel of land or site that is governed under the Mobilehome Residency Law, Civil Code section 798, the Recreational Vehicle Park Occupancy Law, Civil Code section 799.20, the

Mobilehome Parks Act, Health and Safety Code section 18200, or the Special Occupancy Parks Act, Health and Safety Code section 18860.

(b)(i)(A)(1) Before submitting an application for a development subject to the streamlined, ministerial approval process described in this section, the development proponent shall submit to the local government a notice of its intent to submit an application. The notice of intent shall be in the form of a preliminary application that includes all of the information described in Section 65941.1 of the Government Code, as that section read on January 1, 2020.

(2) Upon receipt of a notice of intent to submit an application, the local government shall engage in a scoping consultation regarding the proposed development with any California Native American tribe that is traditionally and culturally affiliated with the geographic area, as described in Section 21080.3.1 of the Public Resources Code, of the proposed development. In order to expedite compliance with this subdivision, the local government shall contact the Native American Heritage Commission for assistance in identifying any California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed development.

(3) The timeline for noticing and commencing a scoping consultation in accordance with this subdivision shall be as follows:

A. The local government shall provide a formal notice of a development proponent's notice of intent to submit an application to each California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed development within 30 days of receiving that notice of intent. The formal notice provided pursuant to this subclause shall include all of the following:

1. A description of the proposed development.
2. The location of the proposed development.
3. An invitation to engage in a scoping consultation in accordance with this subdivision.

B. Each California Native American tribe that receives a formal notice pursuant to this clause shall have 30 days from the receipt of that notice to accept the invitation to engage in a scoping consultation.

C. If the local government receives a response accepting an invitation to engage in a scoping consultation pursuant to this subdivision, the local government shall commence the scoping consultation within 30 days of receiving that response.

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(B) The scoping consultation shall recognize that California Native American tribes traditionally and culturally affiliated with a geographic area have knowledge and expertise concerning the resources at issue and shall take into account the cultural significance of the resource to the culturally affiliated California Native American tribe.

(C) The parties to a scoping consultation conducted pursuant to this subdivision shall be the local government and any California Native American tribe traditionally and culturally affiliated with the geographic area of the proposed development. More than one California Native American tribe traditionally and culturally affiliated with the geographic area of the proposed development may participate in the scoping consultation. However, the local government, upon the request of any California Native American tribe traditionally and culturally affiliated with the geographic area of the proposed development, shall engage in a separate scoping consultation with that California Native American tribe. The development proponent and its consultants may participate in a scoping consultation process conducted pursuant to this subdivision if all of the following conditions are met:

(1) The development proponent and its consultants agree to respect the principles set forth in this subdivision.

(2) The development proponent and its consultants engage in the scoping consultation in good faith.

(3) The California Native American tribe participating in the scoping consultation approves the participation of the development proponent and its consultants. The California Native American tribe may rescind its approval at any time during the scoping consultation, either for the duration of the scoping consultation or with respect to any particular meeting or discussion held as part of the scoping consultation.

(D) The participants to a scoping consultation pursuant to this subdivision shall comply with all of the following confidentiality requirements: (1) Government Code section 7927.000; Government Code section 7927.005; Public Resources Code section 21083.3, subdivision (c); (4) State CEQA Guidelines section 15120, subdivision (d); and any additional confidentiality standards adopted by the California Native American tribe participating in the scoping consultation.

(E) CEQA does not apply to the scoping consultation conducted pursuant to this subdivision.

(b)(ii)(A) If, after concluding the scoping consultation, the parties find that no potential tribal cultural resource would be affected by the proposed development, the development proponent may submit an application for the proposed development

that is subject to the streamlined, ministerial approval process described in this section

.

(B) If, after concluding the scoping consultation, the parties find that a potential tribal cultural resource could be affected by the proposed development and an enforceable agreement is documented between the California Native American tribe and the local government on methods, measures, and conditions for tribal cultural resource treatment, the development proponent may submit the application for a development subject to the streamlined, ministerial approval process described in this section. The local government shall ensure that the enforceable agreement is included in the requirements and conditions for the proposed development.

(C) If, after concluding the scoping consultation, the parties find that a potential tribal cultural resource could be affected by the proposed development and an enforceable agreement is not documented between the California Native American tribe and the local government regarding methods, measures, and conditions for tribal cultural resource treatment, the development shall not be eligible for the streamlined, ministerial approval process described in this section.

(D) For purposes of this paragraph, a scoping consultation shall be deemed to be concluded if either of the following occur:

(1) The parties to the scoping consultation document an enforceable agreement concerning methods, measures, and conditions to avoid or address potential impacts to tribal cultural resources that are or may be present.

(2) One or more parties to the scoping consultation, acting in good faith and after reasonable effort, conclude that a mutual agreement on methods, measures, and conditions to avoid or address impacts to tribal cultural resources that are or may be present cannot be reached.

(E) If the development or environmental setting substantially changes after the completion of the scoping consultation, the local government shall notify the California Native American tribe of the changes and engage in a subsequent scoping consultation if requested by the California Native American tribe.

(b)(iii) A local government may only accept an application for streamlined, ministerial approval pursuant to this section if one of the following applies:

(A) A California Native American tribe that received a formal notice of the development proponent's notice of intent to submit an application pursuant to this section did not accept the invitation to engage in a scoping consultation.

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(B) The California Native American tribe accepted an invitation to engage in a scoping consultation pursuant to this section but substantially failed to engage in the scoping consultation after repeated documented attempts by the local government to engage the California Native American tribe.

(C) The parties to a scoping consultation pursuant to this subdivision find that no potential tribal cultural resource will be affected by the proposed development.

(D) A scoping consultation between a California Native American tribe and the local government has occurred and resulted in an agreement.

(b)(iv) A project shall not be eligible for the streamlined, ministerial process described in this section if any of the following apply:

(A) There is a tribal cultural resource that is on a national, state, tribal, or local historic register list located on the site of the project.

(B) There is a potential tribal cultural resource that could be affected by the proposed development and the parties to a scoping consultation conducted pursuant to this subdivision do not document an enforceable agreement on methods, measures, and conditions for tribal cultural resource treatment, as described in this section.

(C) The parties to a scoping consultation conducted pursuant to this subdivision do not agree as to whether a potential tribal cultural resource will be affected by the proposed development.

(b)(v) (A) If, after a scoping consultation conducted pursuant to this subdivision, a project is not eligible for the streamlined, ministerial process described in this section for any or all of the following reasons, the local government shall provide written documentation of that fact, and an explanation of the reason for which the project is not eligible, to the development proponent and to any California Native American tribe that is a party to that scoping consultation:

(1) There is a tribal cultural resource that is on a national, state, tribal, or local historic register list located on the site of the project.

(2) The parties to the scoping consultation have not documented an enforceable agreement on methods, measures, and conditions for tribal cultural resource treatment.

(3) The parties to the scoping consultation do not agree as to whether a potential tribal cultural resource will be affected by the proposed development.

(b)(v) (B) The written documentation provided to a development proponent pursuant to this paragraph shall include information on how the development proponent may

seek a conditional use permit or other discretionary approval of the development from the local government.

(b)(vi) This section is not intended, and shall not be construed, to limit consultation and discussion between a local government and a California Native American tribe pursuant to other applicable law, confidentiality provisions under other applicable law, the protection of religious exercise to the fullest extent permitted under state and federal law, or the ability of a California Native American tribe to submit information to the local government or participate in any process of the local government.

(b)(vii) For purposes of this subdivision:

(A) "Consultation" means the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties' cultural values and, where feasible, seeking agreement. Consultation between local governments and Native American tribes shall be conducted in a way that is mutually respectful of each party's sovereignty. Consultation shall also recognize the tribes' potential needs for confidentiality with respect to places that have traditional tribal cultural importance. A lead agency shall consult the tribal consultation best practices described in the "State of California Tribal Consultation Guidelines: Supplement to the General Plan Guidelines" prepared by the Office of Land Use and Climate Innovation.

(B) "Scoping" means the act of participating in early discussions or investigations between the local government and California Native American tribe, and the development proponent if authorized by the California Native American tribe, regarding the potential effects a proposed development could have on a potential tribal cultural resource, as defined in Section 21074 of the Public Resources Code, or California Native American tribe, as defined in Section 21073 of the Public Resources Code.

(b)(viii) This subdivision (b) shall not apply to any project that has been approved under the streamlined, ministerial approval process provided under this section before September 25, 2020.

(c) (i) If a local government determines that a development submitted pursuant to this section is consistent with the objective planning standards specified in subdivision (a) and pursuant to paragraph (iii) of this subdivision, it shall approve the development. If a local government determines that a development submitted pursuant to this section is in conflict with any of the objective planning standards specified in subdivision (a), it shall provide the development proponent written documentation of which standard or standards the development conflicts with, and an explanation for the reason or reasons the development conflicts with that standard or standards, as follows:

(A) Within 60 days of submittal of the development to the local government pursuant to this section if the development contains 150 or fewer housing units.

(B) Within 90 days of submittal of the development to the local government pursuant to this section if the development contains more than 150 housing units.

(ii) If the local government fails to provide the required documentation pursuant to paragraph (1), the development shall be deemed to satisfy the objective planning standards specified in subdivision (a).

(iii) For purposes of this section, a development is consistent with the objective planning standards specified in subdivision (a) if there is substantial evidence that would allow a reasonable person to conclude that the development is consistent with the objective planning standards. The local government shall not determine that a development, including an application for a modification under subdivision (g), is in conflict with the objective planning standards on the basis that application materials are not included, if the application contains substantial evidence that would allow a reasonable person to conclude that the development is consistent with the objective planning standards.

(d) (i) Any design review or public oversight of the development may be conducted by the local government's planning commission or any equivalent board or commission responsible for review and approval of development projects, or the city council or board of supervisors, as appropriate. That design review or public oversight shall be objective and be strictly focused on assessing compliance with criteria required for streamlined projects, as well as any reasonable objective design standards published and adopted by ordinance or resolution by a local jurisdiction before submission of a development application, and shall be broadly applicable to development within the jurisdiction. That design review or public oversight shall be completed, and if the development is consistent with all objective standards, the local government shall approve the development as follows and shall not in any way inhibit, chill, or preclude the ministerial approval provided by this section or its effect, as applicable:

(A) Within 90 days of submittal of the development to the local government pursuant to this section if the development contains 150 or fewer housing units.

(B) Within 180 days of submittal of the development to the local government pursuant to this section if the development contains more than 150 housing units.

(ii) If the development is consistent with the requirements of subparagraph (A) or (B) of paragraph (ix) of subdivision (a) and is consistent with all objective subdivision standards in the local subdivision ordinance, an application for a subdivision pursuant to the Subdivision Map Act (Division 2 (commencing with Government Code section 66410)) shall be

exempt from the requirements of CEQA and shall be subject to the public oversight timelines set forth in paragraph (i).

(iii) If a local government determines that a development submitted pursuant to this section is in conflict with any of the standards imposed pursuant to paragraph (i), it shall provide the development proponent written documentation of which objective standard or standards the development conflicts with, and an explanation for the reason or reasons the development conflicts with that objective standard or standards consistent with the timelines described in paragraph (i) of subdivision (c).

(e) (i) Notwithstanding any other law, a local government, whether or not it has adopted an ordinance governing parking requirements in multifamily developments, shall not impose parking standards for a streamlined development that was approved pursuant to this section in any of the following instances:

(A) The development is located within one-half mile of public transit.

(B) The development is located within an architecturally and historically significant historic district.

(C) When on-street parking permits are required but not offered to the occupants of the development.

(D) When there is a car share vehicle located within one block of the development.

(ii) If the development does not fall within any of the categories described in paragraph (1), the local government shall not impose parking requirements for streamlined developments approved pursuant to this section that exceed one parking space per unit.

(f) (i) If a local government approves a development pursuant to this section, then, notwithstanding any other law, that approval shall not expire if the project satisfies both of the following requirements:

(A) The project includes public investment in housing affordability, beyond tax credits.

(B) At least 50 percent of the units are affordable to households making at or below 80 percent of the area median income.

(ii) If a local government approves a development pursuant to this section, and the project does not satisfy the requirements of subparagraphs (A) and (B) of paragraph (f)(i), that approval shall remain valid for three years from the date of the final action establishing that approval, or if litigation is filed challenging that approval, from the date of the final judgment upholding that approval. Approval shall remain valid for a project provided construction activity, including demolition and grading activity, on the

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development site has begun pursuant to a permit issued by the local jurisdiction and is in progress. For purposes of this subdivision, "in progress" means one of the following:

(A) The construction has begun and has not ceased for more than 180 days.

(B) If the development requires multiple building permits, an initial phase has been completed, and the project proponent has applied for and is diligently pursuing a building permit for a subsequent phase, provided that once it has been issued, the building permit for the subsequent phase does not lapse.

(C) Notwithstanding subparagraph (ii), a local government may grant a project a one-time, one-year extension if the project proponent can provide documentation that there has been significant progress toward getting the development construction ready, such as filing a building permit application.

(iii) If the development proponent requests a modification pursuant to subdivision (g), then the time during which the approval shall remain valid shall be extended for the number of days between the submittal of a modification request and the date of its final approval, plus an additional 180 days to allow time to obtain a building permit. If litigation is filed relating to the modification request, the time shall be further extended during the pendency of the litigation. The extension required by this paragraph shall only apply to the first request for a modification submitted by the development proponent.

(g) (i)(A) A development proponent may request a modification to a development that has been approved under the streamlined, ministerial approval process provided in subdivision (b) if that request is submitted to the local government before the issuance of the final building permit required for construction of the development.

(i)(B) Except as provided in paragraph (g)(iiii), the local government shall approve a modification if it determines that the modification is consistent with the objective planning standards specified in subdivision (a) that were in effect when the original development application was first submitted.

(i)(C) The local government shall evaluate any modifications requested pursuant to this subdivision for consistency with the objective planning standards using the same assumptions and analytical methodology that the local government originally used to assess consistency for the development that was approved for streamlined, ministerial approval pursuant to subdivision (b).

(i)(D) A guideline that is adopted or amended by the Department of Housing and Community Development after a development is approved through the streamlined, ministerial

approval process described in subdivision (b) shall not be used as a basis to deny proposed modifications.

(ii) Upon receipt of the development proponent's application requesting a modification, the local government shall determine if the requested modification is consistent with the objective planning standard and either approve or deny the modification request within 60 days after submission of the modification, or within 90 days if design review is required.

(iii) Notwithstanding paragraph (g)(i), the local government may apply objective planning standards adopted after the development application was first submitted to the requested modification in any of the following instances:

(A) The development is revised such that the total number of residential units or total square footage of construction changes by 15 percent or more. The calculation of the square footage of construction changes shall not include underground space.

(B) The development is revised such that the total number of residential units or total square footage of construction changes by 5 percent or more and it is necessary to subject the development to an objective standard beyond those in effect when the development application was submitted in order to mitigate or avoid a specific, adverse impact as that term is defined in subparagraph (A) of paragraph (1) of subdivision (j) of Government Code section 65589.5, upon the public health or safety and there is no feasible alternative method to satisfactorily mitigate or avoid the adverse impact. The calculation of the square footage of construction changes shall not include underground space.

(C) Objective building standards contained in the California Building Standards Code (Title 24 of the California Code of Regulations), including, but not limited to, building plumbing, electrical fire, and grading codes, may be applied to all modification applications that are submitted prior to the first building permit application. Those standards may be applied to modification applications submitted after first building permit application if agreed to by the development proponent.

(iv) The local government's review of a modification request pursuant to this subdivision shall be strictly limited to determining whether the modification, including any modification to previously approved density bonus concessions or waivers, modify the development's consistency with the objective planning standards and shall not reconsider prior determinations that are not affected by the modification.

(h) (i) A local government shall not adopt or impose any requirement, including, but not limited to, increased fees or inclusionary housing requirements, that applies to a project

solely or partially on the basis that the project is eligible to receive ministerial or streamlined approval pursuant to this section.

(ii) A local government shall issue a subsequent permit required for a development approved under this section if the application substantially complies with the development as it was approved pursuant to subdivision (b). Upon receipt of an application for a subsequent permit, the local government shall process the permit without unreasonable delay and shall not impose any procedure or requirement that is not imposed on projects that are not approved pursuant to this section. The local government shall consider the application for subsequent permits based upon the objective standards specified in any state or local laws that were in effect when the original development application was submitted, unless the development proponent agrees to a change in objective standards. Issuance of subsequent permits shall implement the approved development, and review of the permit application shall not inhibit, chill, or preclude the development. For purposes of this paragraph, a "subsequent permit" means a permit required subsequent to receiving approval under subdivision (b), and includes, but is not limited to, demolition, grading, and building permits and final maps, if necessary.

(i) (i) This section shall not affect a development proponent's ability to use any alternative streamlined by right permit processing adopted by a local government, including the provisions of Government Code section 65583.2(i).

(ii) This section shall not prevent a development from also qualifying as a housing development project entitled to the protections of Government Code section 65589.5. This paragraph does not constitute a change in, but is declaratory of, existing law.

(j) CEQA does not apply to actions taken by a state agency, local government, or the San Francisco Bay Area Rapid Transit District to:

(i) Lease, convey, or encumber land owned by the local government or the San Francisco Bay Area Rapid Transit District or to facilitate the lease, conveyance, or encumbrance of land owned by the local government, or for the lease of land owned by the San Francisco Bay Area Rapid Transit District in association with an eligible TOD project, as defined pursuant to Section 29010.1 of the Public Utilities Code, nor to any decisions associated with that lease, or to provide financial assistance to a development that receives streamlined approval pursuant to this section that is to be used for housing for persons and families of very low, low, or moderate income, as defined in Section 50093 of the Health and Safety Code.

(ii) Approve improvements located on land owned by the local government or the San Francisco Bay Area Rapid Transit District that are necessary to implement a development that receives streamlined approval pursuant to this section that is to be used for housing for persons and families of very low, low, or moderate income, as defined in Section 50093 of the Health and Safety Code.

(k) For purposes of this section the following definitions shall apply:

(1) "Affordable housing cost" has the same meaning as set forth in section 50052.5 of the Health and Safety Code.

(2) (A) Subject to the qualification provided by subparagraph (B), "affordable rent" has the same meaning as set forth in Section 50063 of the Health and Safety Code.

(B) For a development for which an application pursuant to this section was submitted prior to January 1, 2019, that includes 500 units or more of housing, and that dedicates 50 percent of the total number of units, before calculating any density bonus, to housing affordable to households making at, or below, 80 percent of the area median income, affordable rent for at least 30 percent of these units shall be set at an affordable rent as defined in subparagraph (k)(1), and "affordable rent" for the remainder of these units shall mean a rent that is consistent with the maximum rent levels for a housing development that receives an allocation of state or federal low-income housing tax credits from the California Tax Credit Allocation Committee.

(3) "Department" means the Department of Housing and Community Development.

(4) "Development proponent" means the developer who submits an application for streamlined approval pursuant to this section.

(5) "Completed entitlements" means a housing development that has received all the required land use approvals or entitlements necessary for the issuance of a building permit.

(6) "Locality" or "local government" means a city, including a charter city, a county, including a charter county, or a city and county, including a charter city and county.

(7) "Moderate income housing units" means housing units with an affordable housing cost or affordable rent for persons and families of moderate income, as that term is defined in Section 50093 of the Health and Safety Code.

(8) "Production report" means the information reported pursuant to subparagraph (D) of paragraph (2) of subdivision (a) of Government Code section 65400.

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(9) "State agency" includes every state office, officer, department, division, bureau, board, and commission, but does not include the California State University or the University of California.

(10) "Subsidized" means units that are price or rent restricted such that the units are affordable to households meeting the definitions of very low and lower income, as defined in Sections 50079.5 and 50105 of the Health and Safety Code.

(11) "Reporting period" means either of the following:

(A) The first half of the regional housing needs assessment cycle.

(B) The last half of the regional housing needs assessment cycle.

(12) "Urban uses" means any current or former residential, commercial, public institutional, transit or transportation passenger facility, or retail use, or any combination of those uses.

(l) The determination of whether an application for a development is subject to the streamlined ministerial approval process provided by subdivision (b) is not a "project" under CEQA.

(m) This section shall remain in effect until January 1, 2036.

(Reference: Gov. Code, § 65913.4.)

9.02 MINISTERIAL APPROVAL PROCESS FOR URBAN LOT SPLITS AND HOUSING DEVELOPMENTS WITH NO MORE THAN TWO RESIDENTIAL UNITS WITHIN A SINGLE-FAMILY RESIDENTIAL ZONE (SB 9)

(a) A proposed housing development containing no more than two residential units within a single-family residential zone shall be considered ministerially, without discretionary review or a hearing, and shall therefore not be subject to CEQA, if the proposed housing development meets all of the following requirements:

(1) The parcel subject to the proposed housing development is located within a city, the boundaries of which include some portion of either an urbanized area or urban cluster, as designated by the United States Census Bureau, or for unincorporated areas, a legal parcel wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.

(2) The parcel is not located on a site that is any of the following:

(A) Either prime farmland or farmland of statewide importance, as defined pursuant to United States Department of Agriculture land inventory and monitoring criteria, as modified for California, and

designated on the maps prepared by the Farmland Mapping and Monitoring Program of the Department of Conservation, or land zoned or designated for agricultural protection or preservation by a local ballot measure that was approved by the voters of that jurisdiction;

(B) Wetlands, as defined in the United States Fish and Wildlife Service Manual, Part 660 FW 2 (June 21, 1993);

(C) Within a very high fire hazard severity zone, as determined by the Department of Forestry and Fire Protection pursuant to Government Code section 51178, or within a high or very high fire hazard severity zone as indicated on maps adopted by the Department of Forestry and Fire Protection pursuant to Section 4202 of the Public Resources Code—unless the parcel is a site excluded from the specified hazard zone by a local agency, or is a site that has adopted fire hazard mitigation measures pursuant to existing building standards or state fire mitigation measures applicable to the development;

(D) A hazardous waste site that is listed pursuant to Government Code section 65962.5 or a hazardous waste site designated by the Department of Toxic Substances Control pursuant to Section 25356 of the Health and Safety Code, unless the State Department of Public Health, State Water Resources Control Board, or Department of Toxic Substances Control has cleared the site for residential use or residential mixed uses;

(E) Within a delineated earthquake fault zone as determined by the State Geologist in any official maps published by the State Geologist, unless the development complies with applicable seismic protection building code standards adopted by the California Building Standards Commission under the California Building Standards Law, and by any local building department;

(F) Within a special flood hazard area subject to inundation by the 1 percent annual chance flood (100-year flood) as determined by the Federal Emergency Management Agency in any official maps published by the Federal Emergency Management Agency;

(G) Within a regulatory floodway as determined by the Federal Emergency Management Agency in any official maps published by the Federal Emergency Management Agency, unless the development has received a no-rise certification;

(H) Lands identified for conservation in an adopted natural community conservation plan pursuant to the Natural Community Conservation

Planning Act, habitat conservation plan pursuant to the federal Endangered Species Act of 1973, or other adopted natural resources protection plan;

(I) Habitat for protected species identified as candidate, sensitive, or species of special status by state or federal agencies, fully protected species, or species protected by the federal Endangered Species Act of 1973, the California Endangered Species Act, or the Native Plant Protection Act; or lands under conservation easement; or

(J) Lands under conservation easement.

(3) Notwithstanding any provision of this section or any local law, the proposed housing development would not require demolition or alteration of any of the following types of housing:

(A) Housing that is subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income;

(B) Housing that is subject to any form of rent or price control through a public entity's valid exercise of its police power;

(C) Housing that has been occupied by a tenant in the last three years.

(4) The parcel subject to the proposed housing development is not a parcel on which an owner of residential real property has exercised the owner's rights to withdraw accommodations from rent or lease within 15 years before the date that the development proponent submits an application.

(5) The proposed housing development does not allow the demolition of more than 25 percent of the existing exterior structural walls, unless the housing development meets at least one of the following conditions:

(A) If a local ordinance so allows; or

(B) The site has not been occupied by a tenant in the last three years

(6) The development is not located within a historic district or property included on the State Historic Resources Inventory, as defined in Section 5020.1 of the Public Resources Code, or within a site that is designated or listed as a city or county landmark or historic property or district pursuant to a city or county ordinance.

Other regulations governing the approval of a housing development under this section are set forth in Government Code section 65852.21(a).

(b) Notwithstanding any other provision of local law, a local agency shall ministerially approve, as set forth in this section, a parcel map for an urban lot split—and such urban lot split shall therefore not be subject to CEQA—only if the local agency determines that the parcel map for the urban lot split meets all of the following requirements:

(1) The parcel map subdivides an existing parcel to create no more than two new parcels of approximately equal lot area provided that one parcel shall not be smaller than 40 percent of the lot area of the original parcel proposed for subdivision.

(2) Both newly created parcels are no smaller than 1,200 square feet, except that a local agency may by ordinance adopt a smaller minimum lot size subject to ministerial approval.

(3) The parcel being subdivided meets all of the following requirements:

(A) The parcel is located within a single-family residential zone.

(B) The parcel subject to the proposed urban lot split is located within a city, the boundaries of which include some portion of either an urbanized area or urban cluster, as designated by the United States Census Bureau, or, for unincorporated areas, a legal parcel wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.

(C) The parcel is not located on a site enumerated in Paragraph (a)(2) above.

(D) The proposed urban lot split would not require demolition or alteration of any of the following types of housing:

(i) Housing that is subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income.

(ii) Housing that is subject to any form of rent or price control through a public entity's valid exercise of its police power.

(iii) A parcel or parcels on which an owner of residential real property has exercised the owner's rights to withdraw accommodations from rent or lease within 15 years before the date that the development proponent submits an application.

(iv) Housing that has been occupied by a tenant in the last three years.

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(E) The parcel is not located within a historic district or property included on the State Historic Resources Inventory, as defined in Section 5020.1 of the Public Resources Code, or within a site that is designated or listed as a city or county landmark or historic property or district pursuant to a city or county ordinance.

(F) The parcel has not been established through prior exercise of an urban lot split as provided for in this section.

(G) Neither the owner of the parcel being subdivided nor any person acting in concert with the owner has previously subdivided an adjacent parcel using an urban lot split as provided for in this section.

Other regulations governing the approval of an urban lot split under this section are set forth in Government Code section 65852.21(b).

9.03 STREAMLINED, MINISTERIAL REVIEW FOR ADAPTIVE REUSE PROJECTS (AB 507)

An adaptive reuse project is a project that retrofits and repurposes an existing building to create new residential or mixed uses including office conversion projects. An adaptive reuse project shall be deemed a use by right in all zones, regardless of zoning, and subject to streamlined, ministerial review and exempt from CEQA, except that:

(1) Any nonresidential use in a mixed-use project must be allowed by existing zoning or be a lawful nonconforming use.

(2) Tourist hotel uses must still follow the local jurisdiction's normal approval process.

(3) Adaptive reuse projects are not allowed in industrial zones that do not permit residential uses.

(a) An adaptive reuse project site must be urban in character:

(1) The site must be a legal parcel located within a U.S. Census–designated urbanized area.

(2) At least 75 percent of the site perimeter must touch other urban development. Streets, highways, and similar rights-of-way count as adjoining development.

(b) An adaptive reuse project must reuse an existing building that qualifies under one of the following categories:

(1) A building less than 50 years old, which may be reused without historic review.

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(2) A building listed as a historic resource, provided the project follows applicable historic-preservation requirements.

(3) A building more than 50 years old that has been reviewed by the local government and determined to be either: (1) a historic resource, with the project complying with historic requirements; or, (2) not a historic resource, allowing the project to proceed without historic constraints.

(c) An adaptive reuse project must meet the following affordability criteria, as applicable:

(1) Rental projects must provide either: (1) 8% of units for very low income households and 5 % of the units for extremely low income households; or (2) 15% of the units for lower income households. All affordable rental units must remain affordable for 55 years.

(2) Owner-occupied projects must provide either: (1) 30% of the units shall be offered at an affordable housing costs to moderate-income households; or (2) 15% of the units shall be offered at an affordable housing cost to lower income households. All affordable ownership units must remain affordable for 45 years.

(3) If a local inclusionary housing policy applies, the project must: (1) meet whichever affordability percentage is higher; (2) must serve the lowest income level required by either state or local law; and (3) for rental project, include very low and extremely low-income units if the local policy does not require them, with adjustments to avoid double counting.

(d) If the adaptive reuse project includes nonresidential uses, at least half of the above-ground building area must be devoted to residential use.

A local government may adopt an ordinance to specify the process and requirements applicable to adaptive reuse projects and require an adaptive reuse project to comply with all objective planning standards found in the ordinance. Such an ordinance is not a "project" under CEQA.

Other regulations governing adaptive reuse projects under this section are set forth in Government Code sections 65658.3, 65658.5(a).

9.04 HOUSING DEVELOPMENT PROJECT LOCATED IN AREAS OF SMALLER POPULATIONS (SB 158)

CEQA does apply to a housing development that is: (1) located in a city with a population of more than 85,000 but less than 95,000, as determined by the 2020 Census, (2) located in a county with a population of more than 440,000 but less than 455,000, as determined by the 2020 Census, (3) a portion of the parcel where the project is located is identified on a United States Fish

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and Wildlife Service map as freshwater forested or shrub wetland; and (4) a portion of the parcel where the project is located is within a regulatory floodway.

(Reference: Pub. Resources Code, § 21080.73.)

9.05 APPROVAL OF ORDINANCE TO ZONE ANY PARCEL FOR UP TO 10 UNITS OF RESIDENTIAL DENSITY PER PARCEL IN CERTAIN CIRCUMSTANCES (SB 10)

(a) A local government may adopt an ordinance to zone a parcel for up to 10 units of residential density per parcel, at a height specified by the local government in the ordinance, if the parcel is located in a transit-rich area or an urban infill site. This subsection shall not apply to either of the following:

(1) Parcels located within a very high fire hazard severity zone, as determined by the Department of Forestry and Fire Protection pursuant to Government Code section 51178, or within a high or very high fire hazard severity zone as indicated on maps adopted by the Department of Forestry and Fire Protection pursuant to Section 4202 of the Public Resources Code. This paragraph does not apply to sites that have adopted fire hazard mitigation measures pursuant to existing building standards or state fire mitigation measures applicable to the development.

(2) Any local restriction enacted or approved by a local initiative that designates publicly owned land as open-space land, as defined in subdivision (h) of Section 65560, or for park or recreational purposes.

(b) An ordinance adopted in accordance with this section, and any resolution to amend the jurisdiction's General Plan, ordinance, or other local regulation adopted to be consistent with that zoning ordinance, shall not constitute a "project" under CEQA.

(c) Notwithstanding any other law that allows ministerial or by right approval of a development project or that grants an exemption from CEQA, a residential or mixed-use residential project consisting of more than 10 new residential units on one or more parcels that are zoned pursuant to an ordinance adopted under this section shall not be approved ministerially or by right and shall not be exempt from CEQA. This subdivision, however, shall not apply to a project located on a parcel or parcels that are zoned pursuant to an ordinance adopted under this section, but subsequently rezoned without regard to this section. A subsequent ordinance adopted to rezone the parcel or parcels shall not be exempt from CEQA. Any environmental review conducted to adopt the subsequent ordinance shall consider the change in the zoning applicable to the parcel or parcels before they were zoned or rezoned pursuant to the ordinance adopted under this section.

Other regulations governing the approval of an ordinance under this section are set forth in Government Code section 65913.5.

9.06 HOUSING SUSTAINABILITY DISTRICTS.

The Planning and Zoning Law requires a city or county to adopt a general plan for land use development within its boundaries. The general plan must contain seven mandatory elements, including a housing element. Existing law provides for various reforms and incentives intended to facilitate and expedite the construction of affordable housing. Senate Bill 73 authorizes a city, county, or city and county, including a charter agency, to establish by ordinance a housing sustainability district that meets specified requirements, including authorizing residential use within the district through the ministerial issuance of a permit. The agency is authorized to apply to the Department of Housing and Community Development for approval of a zoning incentive payment and requires the agency to provide specified information about the proposed housing sustainability district ordinance. The department is required to approve a zoning incentive payment if the ordinance meets the above-described requirements and the agency's housing element is in compliance with specified law.

A city, county, or city and county with a housing sustainability district would be entitled to a zoning incentive payment, subject to appropriation of funds for that purpose, and require that one-half of the amount be paid when the department approves the zone and one-half of the amount be paid when the department verifies that permits for the construction of the units have issued within the zone, provided that the city, county, or city and county has received a certificate of compliance for the applicable year. If the agency reduces the density of sites within the district from specified levels set forth in the Senate Bill 73, the agency would be required to return the full amount of zoning incentive payments it has received to the department. The bill also authorizes a developer to develop a project in a housing sustainability district in accordance with the already existing land use approval procedures that would otherwise apply to the parcel in the absence of the establishment of the housing sustainability district pursuant to its provisions, as provided.

As it relates specifically to CEQA, a Lead Agency designating a housing sustainability district is required to prepare an EIR pursuant to Government Code section 66201 to identify and mitigate, to the extent feasible, environmental impacts resulting from the designation. The EIR shall identify mitigation measures that may be undertaken by housing projects in the housing sustainability district to mitigate the environmental impacts identified in the EIR. Housing projects undertaken in the housing sustainability districts that meet specified requirements, including if the project satisfies certain design review standards applicable to development projects within the district provided the project is "complementary to adjacent buildings and structures and is consistent with the [agency's] general plan," are exempt under CEQA. (Reference: Pub. Resources Code, § 21155.10, 21155.11.)

9.07 INTERIM MOTEL HOUSING PROJECTS.

"Interim motel housing projects" are statutorily exempt from CEQA. A project is exempt from CEQA as an "interim motel housing project" where the project consists of the conversion of a structure with a certificate of occupancy as a motel, hotel, residential hotel, or hostel to supportive or transitional housing and the conversion meets at least one of the following conditions: (1) the conversion does not result in the expansion of more than 10 percent of the floor area of any individual living unit in the structure; and (2) the conversion does not result in any significant effects relating to traffic, noise, air quality, or water quality.

If the District determines that a project is exempt from CEQA as an interim motel housing project, it must file a Notice of Exemption with the State Clearinghouse.

(Reference: Pub. Resources Code, § 21080.50.)

9.08 SUPPORTIVE HOUSING AND "NO PLACE LIKE HOME" PROJECTS.

A decision by the District to seek funding from, or the Department of Housing and Community Development's awarding of funds pursuant to, the "No Place Like Home Program" (set forth in Part 3.9 of Division 5 of the Welfare and Institutions Code, commencing with Section 5849.1) does not constitute a "project" under CEQA.

"Supportive housing" in areas where multifamily and mixed uses are permitted may be a "use by right" and thus exempt from CEQA if the supportive housing project meets certain criteria set forth in Government Code section 65651. A "supportive housing" project is a project that provides housing with no limit on length of stay, that is occupied by persons within the target population—i.e., persons with disabilities, families who are homeless, or homeless youth—and that is linked to onsite or offsite services that assist the supportive housing resident to retain housing, improve their health status, and maximize their ability to live and, when possible, work in the community. A policy by a city or county to approve as a use by right proposed housing developments with a limit higher than 50 units does not constitute a "project" under CEQA. To see the requirements of the exemptions relating to supportive housing, please see Government Code section 65651.

If a No Place Like Home project is not exempt from CEQA under Government Code section 65651, the development applicant may request, within 10 days after the District determines the type of environmental documentation required for the project under CEQA, that the District prepare and certify the record of proceeding for the environmental review of the No Place Like Home project in accordance with Public Resources Code section 21186.

If the District approves or determines to carry out a No Place Like Home project that is subject to CEQA, the District shall file a notice of that approval or determination in accordance with the requirements of Public Resources Code section 21151, subdivision (a), except that the Notice of Determination shall be filed within two working days after the approval or determination becomes final. Likewise, if the District approves or determines to carry out a No Place Like Home project that is not subject to CEQA, the District shall file a Notice of Exemption in accordance with the requirements of Public Resources Code section 21152, subdivision (b), except that the Notice of Exemption shall be filed within two working days after the approval or determination becomes final.

(Reference: Pub. Resources Code, § 21163, *et seq.*; Gov. Code, § 65651; Health & Safety Code, § 50675.14.)

9.09 SHELTER CRISIS AND EMERGENCY HOUSING.

An action taken by certain cities, counties, or state agencies to lease, convey, or encumber land owned by a city or county—or an action to facilitate the lease, conveyance, or encumbrance of land owned by the local government—for, or to provide financial assistance to, a homeless

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shelter constructed pursuant to the provisions of Government Code section 8698.4 is statutorily exempt from CEQA. This narrow exception applies to specified efforts to assist specified cities or counties that have declared a shelter crisis and seek to build a homeless shelter. To see all the requirements of this exemption, please see Government Code section 8698.4.

(Reference: Gov. Code, § 8698.4 [in effect until January 1, 2026].)

9.10 AFFORDABLE HOUSING DEVELOPMENTS IN COMMERCIAL ZONES.

A proposed affordable multifamily housing development project is subject to streamlined, ministerial review and is not subject to CEQA if it meets the following requirements:

1. One hundred percent of the units within the development project, excluding managers' units, must be dedicated to lower income households at an affordable cost, as defined by Section 50052.5 of the Health and Safety Code, or an affordable rent set in an amount consistent with the rent limits established by the California Tax Credit Allocation Committee. The units must be subject to a recorded deed restriction for a period of 55 years for rental units and 45 years for owner-occupied units.

2. The proposed development must meet applicable objective zoning standards, objective subdivision standards, and objective design review standards as further defined in Government Code section 65912.113(f) & (g).

3. The proposed housing development must meet certain density requirements set forth in Government Code section 65583.2(c)(3).

4. The project must be located in a zone where office, retail, or parking are a principally permitted use.

5. At least 75 percent of the perimeter of the project site must adjoin parcels that are developed with urban uses. Parcels that are only separated by a street or highway shall be considered adjoined.

6. The project may not be located on a site or adjoined to any site where more than one-third of the square footage on the site is dedicated to industrial use.

7. The project site must be located on a legal parcel or parcels that are either (a) in a city where the city boundaries include some portion of either an urbanized area or urban cluster, as designated by the United States Census Bureau; or (b) in an unincorporated area, and the legal parcel or parcels are wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.

8. None of the proposed housing may be located within 500 feet of a freeway.

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9. None of the proposed housing may be located within 3,200 feet of a facility that actively extracts or refines oil or natural gas.

10. The project may not be located on a site that qualifies as either prime farmland or farmland of statewide importance.

11. The project site may not be located in wetlands.

12. The project site may not be located in a very high fire hazard severity zone.

13. The project site may not be located on a hazardous waste site, with limited exceptions as set forth in Government Code section 65913.4(a)(6)(E).

14. The project site may not be located within a delineated earthquake fault zone, unless the development complies with applicable seismic protection building code standards as set forth in Government Code section 65913.4(a)(6)(F).

15. The project may not be located within a special flood hazard area subject to inundation by the 1 percent annual chance flood (100-year flood) as determined by the Federal Emergency Management Agency ("FEMA").

16. The project site may not be located within a regulatory floodway as determined by FEMA, with limited exceptions as set forth in Government Code section 65913.4(a)(6)(H).

17. The project site may not be located on lands identified for conservation in an adopted natural community conservation plan pursuant to the Natural Community Conservation Planning Act, habitat conservation plan pursuant to the federal Endangered Species Act, or other adopted natural resource protection plan.

18. The project site may not be located on habitat for protected species identified as candidate, sensitive, or species of special status by state or federal agencies, fully protected species, or species protected by the federal Endangered Species Act, the California Endangered Species Act, or the Native Plant Protection Act.

19. The project site may not be located on lands under conservation easement.

20. The project site may not be located on an existing parcel of land or site that is governed under the Mobilehome Residency Law, the Recreational Vehicle Park Occupancy Law, the Mobilehome Parks Act, or the Special Occupancy Parks Act.

21. For a project proposed on a site within a neighborhood plan area, the applicable neighborhood plan must permit multifamily housing development on the site. Additional requirements apply to projects within a neighborhood plan area as of January 1, 2024, as set forth in Government Code section 65912.113(i).

22. For a project proposed on a vacant site, the project may not result in significant and unavoidable impacts to tribal cultural resources on the site.

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23. The development proponent must complete a Phase I Environmental Site Assessment, and the proponent must undertake additional measures if a recognized environmental condition is found as set forth in Government Code section 65912.113(c).

A project approved under this section must meet certain labor standards, as set forth in Government Code section 65912.130, et seq. For example, a private housing development project under this section is subject to a requirement that all construction workers employed in the execution of the development be paid at least the general prevailing rate of per diem wages for the type of work and geographic area, as determined by the Director of Industrial Relations.

(Reference: Gov. Code, § 65912.110, et seq.)

9.11 MIXED-INCOME HOUSING DEVELOPMENTS ALONG COMMERCIAL CORRIDORS.

A proposed multifamily housing development project is subject to streamlined, ministerial review and is not subject to CEQA if it meets the following requirements:

1. The proposed development project must meet all of the following affordability criteria, as set forth in greater detail in Government Code section 65912.122:

   (a)(1) A rental housing development shall include either of the following:

      (A) Eight percent of the units for very low income households and 5 percent of the units for extremely low income households; or

      (B) Fifteen percent of the units for lower income households.

   (2) The development proponent must agree to, and the local government must ensure, the continued affordability of all affordable rental units included pursuant to this section for 55 years.

   (b)(1) An owner-occupied housing development shall include either of the following:

      (A) Thirty percent of the units must be offered at an affordable housing cost, as defined in Section 50052.5 of the Health and Safety Code, to moderate-income households; or

      (B) Fifteen percent of the units must be offered at an affordable housing cost, as defined in Section 50052.5 of the Health and Safety Code, to lower income households.

   (2) The development proponent must agree to, and the local government must ensure, the continued affordability of all affordable rental units included pursuant to this section for 45 years.

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(c) If the local government has a local affordable housing requirement, the housing development project shall comply with all of the following:

(1) The development project shall include the percentage of affordable units required by this section or the local requirement, whichever is higher.

(2) The development project shall meet the lowest income targeting in either policy.

(3) If the local affordable housing requirement requires greater than 15 percent of the units to be dedicated for lower income households and does not require the inclusion of units affordable to very low and extremely low income households, then the rental housing development shall do both of the following:

(A) Include 8 percent of the units for very low income households and 5 percent of the units for extremely low income households; and

(B) Fifteen percent of units affordable to lower income households shall be subtracted from the percentage of units required by the local policy at the highest required affordability level.

(d) Affordable units in the development project shall have the same bedroom and bathroom count ratio as the market rate units, be equitably distributed within the project, and have the same type or quality of appliances, fixtures, and finishes.

2. The project site must abut a commercial corridor and have frontage along the commercial corridor of at least 50 feet.

3. The project site may not be greater than 20 acres.

4. The project must be located in a zone where office, retail, or parking are a principally permitted use.

5. At least 75 percent of the perimeter of the project site must adjoin parcels that are developed with urban uses. Parcels that are only separated by a street or highway shall be considered adjoined.

6. The project may not be located on a site or adjoined to any site where more than one-third of the square footage on the site is dedicated to industrial use.

7. The project site must be located on a legal parcel or parcels that are either (a) in a city where the city boundaries include some portion of either an urbanized area or urban cluster, as designated by the United States Census Bureau; or (b) in an

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unincorporated area, and the legal parcel or parcels are wholly within the boundaries of an urbanized area or urban cluster, as designated by the United States Census Bureau.

8. The proposed development must meet applicable objective zoning standards, objective subdivision standards, and objective design review standards as further explained in Government Code section 65912.123(j).

9. The proposed housing development must meet certain density requirements set forth in Government Code section 65912.123(b).

10. The proposed housing development must meet certain height and setback requirements set forth in Government Code section 65912.123(c)-(d).

11. The project may not be located on a site where any of the following would apply:

    (a) The development would require the demolition of the following types of housing: (i) housing that is subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of moderate, low, or very low income; (ii) housing that is subject to any form of rent or price control through a public entity's valid exercise of its police power; (iii) or housing that has been occupied by tenants within the past 10 years, excluding any manager's units.

    (b) The site was previously used for permanent housing that was occupied by tenants, excluding any manager's units, that was demolished within 10 years before the development proponent submitted its application for the development.

    (c) The site would require the demolition of a historic structure that was placed on a national, state, or local historic register.

    (d) The property contains one to four dwelling units.

    (e) The property is vacant and zoned for housing but not for multifamily residential use.

    (f) The existing parcel of land or site is governed under the Mobilehome Residency Law, the Recreational Vehicle Park Occupancy Law, the Mobilehome Parks Act, or the Special Occupancy Parks Act

12. None of the proposed housing may be located within 500 feet of a freeway.

13. None of the proposed housing may be located within 3,200 feet of a facility that actively extracts or refines oil or natural gas.

14. The project may not be located on a site that qualifies as either prime farmland or farmland of statewide importance.

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15. The project site may not be located in wetlands.

16. The project site may not be located in a very high fire hazard severity zone.

17. The project site may not be located on a hazardous waste site, with limited exceptions as set forth in Government Code section 65913.4(a)(6)(E).

18. The project site may not be located within a delineated earthquake fault zone, unless the development complies with applicable seismic protection building code standards as set forth in Government Code section 65913.4(a)(6)(F).

19. The project may not be located within a special flood hazard area subject to inundation by the 1 percent annual chance flood (100-year flood) as determined by the Federal Emergency Management Agency ("FEMA").

20. The project site may not be located within a regulatory floodway as determined by FEMA, with limited exceptions as set forth in Government Code section 65913.4(a)(6)(H).

21. The project site may not be located on lands identified for conservation in an adopted natural community conservation plan pursuant to the Natural Community Conservation Planning Act, habitat conservation plan pursuant to the federal Endangered Species Act, or other adopted natural resource protection plan.

22. The project site may not be located on habitat for protected species identified as candidate, sensitive, or species of special status by state or federal agencies, fully protected species, or species protected by the federal Endangered Species Act, the California Endangered Species Act, or the Native Plant Protection Act.

23. The project site may not be located on lands under conservation easement.

24. For a project proposed on a site within a neighborhood plan area, the applicable neighborhood plan must permit multifamily housing development on the site. Additional requirements apply to projects within a neighborhood plan area as of January 1, 2024, as set forth in Government Code section 65912.121(i).

25. For a project proposed on a vacant site, the project may not result in significant and unavoidable impacts to tribal cultural resources on the site.

26. The development proponent must complete a Phase I Environmental Site Assessment, and the proponent must undertake additional measures if a recognized environmental condition is found as set forth in Government Code section 65912.123(f).

A project approved under this section must meet certain labor standards, as set forth in Government Code section 65912.130, et seq. For example, a private housing development project under this section is subject to a requirement that all construction workers employed in

the execution of the development be paid at least the general prevailing rate of per diem wages for the type of work and geographic area, as determined by the Director of Industrial Relations.

(Reference: Gov. Code, § 65912.120, et seq.)

9.12 A RESPONSIBLE AGENCY'S PROVISION OF FINANCIAL ASSISTANCE OR INSURANCE FOR THE DEVELOPMENT AND CONSTRUCTION OF AFFORDABLE HOUSING.

Action taken by a local agency that is acting as a responsible agency – not as a lead agency – to provide financial assistance or insurance for the development and construction of residential housing for persons and families of low or moderate income, as defined in Section 50093 of the Health and Safety Code, is exempt from CEQA if the project that is the subject of the application for financial assistance or insurance will be subject to CEQA review by another public agency. This includes a local agency's approval of contracts that provide residential, counseling, and security services for people experiencing homelessness.

(Reference: Pub. Resources Code, § 21080.10.)

9.13 EXEMPTION FOR SPECIFIED AFFORDABLE HOUSING PROJECTS.

If the conditions and requirements set forth in Public Resources code section 21080.40 are met, the following public agency action relating to an "affordable housing project" shall be exempt from CEQA :

1. The issuance of an entitlement by a public agency for an affordable housing project.

2. An action to lease, convey, or encumber land owned by a public agency for an affordable housing project.

3. An action to facilitate the lease, conveyance, or encumbrance of land owned or to be purchased by a public agency for an affordable housing project.

4. Rezoning, specific plan amendments, or general plan amendments required specifically and exclusively to allow the construction of an affordable housing project.

5. An action to provide financial assistance in furtherance of implementing an affordable housing project.

Section 21080.40 of the Public Resources Code defines "affordable housing project" as a project that meets the following requirements:

- The project consists of multifamily residential uses only or a mix of multifamily residential and nonresidential uses;

- At least two-thirds of the square footage of the project is designated for residential use;

- All of the project's residential units, excluding managers' units, are dedicated to lower income households, as defined by Health & Safety Code section 50079.5;

- The project meets the labor requirements set forth in Government Code section 65912.130, or Government Code section 65912.131 if the project has 50 or more residential units;

- The project is located on a parcel in any of the following locations: (i) an urbanized area or urban cluster, as designated by the United States Census Bureau, (ii) within one-half mile walking distance to either a high-quality transit corridor or a major transit stop, (iii) a very low vehicle travel area (defined as an urbanized area where existing residential development generates vehicle miles traveled per capita that is below 85 percent of either regional vehicle miles traveled per capita or city vehicle miles traveled per capita), or (iv) proximal to six or more certain specified amenities, including within one-half mile of a bus station or ferry terminal, or within one mile (or two miles if in a rural area) of a supermarket or grocery store, public park, community center, pharmacy or drugstore, medical clinic or hospital, public library, or a school; and

- Parcels that are developed with urban uses must adjoin at least 75 percent of the perimeter of the project site or at least three sides of a four-sided project site.

To qualify for this exemption, the affordable housing project must meet a series of requirements set forth in Public Resources Code section 21080.40. The requirements include that the affordable housing project be subject to a recorded California Tax Credit Allocation Committee regulatory agreement for at least 55 years upon completion of construction, and that the project site must be adequately served by existing utilities or extensions. In addition, the public agency must confirm that the project is not built on environmentally sensitive or hazardous land; that the project will not have significant and unavoidable tribal cultural resource impacts; that a Phase I environmental assessment was prepared and any hazardous substances on the site have been remediated; and if the project site is not permitted for multifamily housing, that none of the housing is located within 500 feet of a freeway or within 3,200 feet of a facility that actively extracts or refines soil or natural gas; and that the project site is not within a very high fire hazard severity zone.

If a lead agency determines that the affordable housing project is exempt from CEQA pursuant to this provision, it must file a notice of exemption with the Office of Land Use and Climate Innovation and the county clerk of each county in which the project is located.

(Reference: Pub. Resources Code, § 21080.40.)

9.14 "NEAR MISS" STREAMLINED HOUSING DEVELOPMENT PROJECT

If a proposed housing development project would normally be exempt from CEQA pursuant to a statutory or categorical exemption (Classes 1 to 5, 12, 15, 20, 27, 30, or 32)—but fails to qualify because of just one specific issue—then CEQA review is limited to only the environmental effects caused by that one issue. The environmental review (initial study or EIR) only needs to

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analyze impacts caused solely by that single disqualifying issue, based on evidence in the record. If an EIR is required, it does not need to analyze project alternatives or growth-inducing impacts.

This limited review does not apply if:

- The project is not similar to the types of projects covered by the exemption.
- The project fails the exemption because of more than one issue.
- The project includes a distribution center or oil and gas infrastructure.
- The project is located on protected natural lands (with limited statutory exceptions).

To note, "condition" means a physical feature, regulatory requirement, or environmental effect related to the project. For a project that involves issuance of a lease, permit, license, certificate, or other entitlement for use, the lead agency must offer early consultation – if requested by a potential applicant – before an application is filed. This consultation covers possible actions, alternatives, mitigation measures, and any potential and significant effects on the environment.

(Reference: Pub. Resources Code, § 21080.1.)

9.15 MINISTERIAL APPROVAL OF HOUSING DEVELOPMENTS ON LAND OWNED BY INDEPENDENT INSTITUTIONS OF HIGHER EDUCATION AND RELIGIOUS INSTITUTIONS.

A "housing development project" is not subject to CEQA if it meets the criteria and requirements set forth in Government Code section 65913.16. To qualify for the exemption, a housing development project must, among other things, meet the following requirements:

1. The housing development project must be located on land owned on or before January 1, 2024 by an independent institution of higher education or a religious institution, including ownership through an affiliated or associated nonprofit public benefit corporation organized pursuant to the Nonprofit Corporation Law (Part 2 (commencing with Section 5110) of Division 2 of Title 1 of the Corporations Code).

2. The housing development project must consist of residential units only; constitute a mixed-use development consisting of residential and non-residential uses with at least two-thirds of the square footage designated for residential use; or consist of transitional housing or supportive housing.

3. The housing development project must meet certain affordability requirements. One hundred percent of the development project's total units, exclusive of a manager's unit or units, must be for lower income households, as defined by Section 50079.5 of the Health and Safety Code, except that up to 20 percent of the total units in the development may be for moderate-income households, as defined in Section 50052 of the Health and Safety Code, and 5 percent of the units may be for staff of the independent institution of higher education or religious institution that owns the land.

4. The project must be subject to specified labor and prevailing wage requirements.

The exemption is subject to a lengthy series of locational and other requirements, set forth in Government Code section 65913.16.

(Reference: Gov. Code, § 65913.16.)

10. CEQA LITIGATION

10.01 TIMELINES.

When a CEQA lawsuit is filed, there are numerous and complex time requirements that must be met. Pressing deadlines begin to run in the days immediately after a CEQA lawsuit has been filed with the Court. For example, within ten (10) business days of the public agency being served with a petition or complaint alleging a violation of CEQA, the District, if it was the Lead Agency, must provide the petitioner with a list of Responsible Agencies and public agencies with jurisdiction by law over any natural resource affected by the project at issue. There are a variety of other deadlines that apply in CEQA litigation.

If a CEQA lawsuit is filed, CEQA counsel should be contacted immediately in order to ensure that all the applicable deadlines are met.

10.02 MEDIATION AND SETTLEMENT.

After Litigation Has Been Filed. The parties in a CEQA lawsuit are required to meet and discuss settlement. Within twenty (20) days of being served with a CEQA legal challenge, the public agency named in the lawsuit must file a notice with the court setting forth the time and place for a settlement meeting. The meeting must be scheduled and held not later than forty-five (45) days from the date of service of the petition or complaint upon the public agency. Usually the main parties to the litigation (such as the Lead Agency, the developer of the project if there is one, and those challenging the project and their respective attorneys) meet to discuss settlement; there is no requirement to hire a professional mediator. The settlement meeting is usually subject to a confidentiality agreement.

If the parties in a CEQA lawsuit are in settlement or mediation, that attempt is intended to occur concurrently with the litigation. This means that the respondent public agency will be required to comply with all existing litigation timelines and requirements (for example, preparing and lodging the administrative record discussed below) while simultaneously conducting settlement or mediation, unless the parties enter into an alternate agreement to stay the litigation and that agreement is approved by the court.

10.03 ADMINISTRATIVE RECORD.

A. Contents of Administrative Record.

When the Lead Agency's CEQA finding(s) and/or action is challenged in a lawsuit, the Lead Agency must certify the administrative record that formed the basis of the Lead Agency's decision. To the extent the documents listed below exist and are not subject to a privilege that exempts them from disclosure, the following items should be included in the administrative record:

(1) All project application materials.

(2) All staff reports and related documents prepared by the public agency with respect to its compliance with the substantive and procedural requirements of CEQA and with respect to the action on the project.

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(3) All staff reports and related documents prepared by the public agency and written testimony or documents submitted by any person relevant to any findings or statement of overriding considerations adopted by the public agency pursuant to CEQA or these Local Guidelines.

(4) Any transcript or minutes of the proceedings at which the decision-making body of the public agency heard testimony on or considered any environmental document on the project, and any transcript or minutes of proceedings before any advisory body to the respondent public agency that were presented to the decision-making body prior to action on the environmental documents or on the project.

(5) All notices issued by the public agency to comply with CEQA or with any other law governing the processing and approval of the project.

(6) All written comments received in response to, or in connection with, environmental documents prepared for the project, including responses to the notice of preparation.

(7) All written evidence or correspondence submitted to, or transferred from, the public agency with respect to compliance with CEQA or with respect to the project.

(8) Any proposed decisions or findings submitted to the decision-making body of the public agency by its staff or the project proponent, project opponents, or other persons, to the extent such documents are subject to public disclosure.

(9) The documentation of the final public agency decision, including the final environmental impact report, mitigated negative declaration, or negative declaration, and all documents, in addition to those referenced in paragraph (3) above, cited or relied on in the findings or in a statement of overriding considerations adopted pursuant to CEQA.

(10) Any other written materials relevant to the respondent public agency's compliance with CEQA or to its decision on the merits of the project, including the initial study; any drafts of any environmental document, or portions thereof, that were released for public review; copies of studies or other documents relied upon in any environmental document prepared for the project and either made available to the public during the public review period or included in the public agency's files on the project; and internal agency communications presented to the final decision-making body or consulted and/or reviewed by the lead agency executive or other administrative official in a supervisory role, including staff notes and memoranda, related to the project or to compliance with CEQA, to the extent such documents are subject to public disclosure. The administrative record need not include communications that are of a logistical nature, such as meeting invitations or scheduling communications. The administrative record further may not include material that is subject to a privilege contained in the Evidence Code or material that is subject to an exemption set forth in the California Public Records Act.

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(11) The full written record before any inferior administrative decision-making body whose decision was appealed prior to the filing of the lawsuit.

B. Organization of Administrative Record.

The administrative record should be organized as follows:

(1) Index. A detailed index must be included at the beginning of the administrative record listing each document in the order presented. Each entry must include the document's title, date, brief description, and the volume and page where the document begins;

(2) The Notice of Determination;

(3) The resolutions or ordinances adopted by the Lead Agency approving the project;

(4) The findings required by Public Resources Code section 21081, including any statement of overriding considerations;

(5) The Final EIR, including the Draft EIR or a revision of the draft, all other matters included in the Final EIR (such as traffic studies and air quality studies), or other types of environmental documents prepared under CEQA, such as a negative declaration, mitigated negative declaration, or addenda;

(6) The initial study;

(7) Staff reports prepared for the administrative bodies providing subordinate approvals or recommendations to the Lead Agency, in chronological order;

(8) Transcripts and minutes of hearings, in chronological order; and

(9) All other documents appropriate for inclusion in the administrative record, in chronological order.

Each section listed above must be separated by tabs or marked with electronic bookmarks. Oversized documents (such as building plans and maps) must be presented in a manner that allows them to be easily unfolded and viewed.

The court may issue an order allowing the documents to be organized in a different manner.

C. Preparation of Administrative Record.

The administrative record can be prepared: (1) by the petitioner, if the petitioner provides the Lead Agency notice that it elects to prepare the record, or (2) by the Lead Agency. If the petitioner provides notice that it elects to prepare the administrative record, the Lead Agency may, within five (5) business days of receiving such notice, deny the petitioner's request to prepare the record. In this circumstance, the Lead Agency may prepare the administrative record itself despite the petitioner's election. The petitioner and the Lead Agency can also agree on any alternative

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method of preparing the record, such as having the project applicant prepare the administrative record. However, when a third party such as the project applicant prepares or assists with the preparation of the administrative record, the Lead Agency may not be able to recover fees incurred by the third party unless petitioner has agreed to this method of preparation.

Notwithstanding the above, upon the written request of a project applicant received no later than 30 days after the date that the Lead Agency makes a determination pursuant to Public Resources Code section 21080.1, 21094.5, or Chapter 4.2 (commencing with Public Resources Code section 21155) and with the written consent of the Lead Agency sent within 10 business days from receipt of the written request, the Lead Agency may prepare the administrative record concurrently with the administrative process. Should the Lead Agency and the project applicant so desire to pursue concurrent record preparation, the parties must comply with the provisions of Public Resources Code section 21167.6.2.

(See Pub. Resources Code, § 21167.6.)

D. Special Circumstances For Environmental Leadership Projects.

Special timing considerations and requirements apply if the Project is certified by the Governor as an Environmental Leadership Project pursuant to the "Jobs and Economic Improvement Through Environmental Leadership Act of 2021." For example, the administrative record must be finished and certified within five (5) days of project approval. See Public Resources Code section 21186 for a complete discussion of the special requirements related to the preparation of an administrative record for an Environmental Leadership Project.

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11. DEFINITIONS

Whenever the following terms are used in these Local Guidelines, they shall have the following meaning unless otherwise expressly defined:

11.01 "Agricultural Employee" means a person engaged in agriculture, which includes farming in all its branches, and, among other things, includes: (1) the cultivation and tillage of the soil, (2) dairying, (3) the production, cultivation, growing, and harvesting of any agricultural or horticultural commodities, (4) the raising of livestock, bees, furbearing animals, or poultry, and (5) any practices (including any forestry or lumbering operations) performed by a farmer or on a farm as an incident to or in conjunction with such farming operations, including preparation for market and delivery to storage or to market or to carriers for transportation to market.

This definition does not include any person covered by the National Labor Relations Act as agricultural employees pursuant to Section 2(3) of the Labor Management Relations Act (Section 152(3), Title 29, United States Code) and Section 3(f) of the Fair Labor Standards Act (Section 203(f), Title 29, United States Code). This definition does not apply to employees who perform work to be done at the site of the construction, alteration, painting, or repair of a building, structure, or other work (as these terms have been construed under Section 8(e) of the Labor Management Relations Act, 29 United States Code section 158(e)) or logging or timber-clearing operations in initial preparation of land for farming, or who does land leveling or only land surveying for any of the above. As used in this definition, "land leveling" shall include only major land moving operations changing the contour of the land, but shall not include annual or seasonal tillage or preparation of land for cultivation. (State CEQA Guidelines section 15191(a).)

11.02 "Applicant" means a person who proposes to carry out a project that requires a lease, permit, license, certificate, or other entitlement for use, or requires financial aid from one or more public agencies when applying for governmental approval or assistance.

11.03 "Approval" Means a decision by the decision-making body or other authorized body or officer of the District which commits the District to a definite course of action with regard to a particular project. With regard to any project to be undertaken directly by the District, approval shall be deemed to occur on the date when the decision-making body adopts a motion or resolution determining to proceed with the project, which in no event shall be later than the date of adoption of plans and specifications. As to private projects, approval shall be deemed to have occurred upon the earliest commitment to provide service or the issuance by the District of a discretionary contract, subsidy, or other form of financial assistance, lease, permit, license, certificate, or other entitlement for use of the project. The mere acquisition of land by the District shall not, in and of itself, be deemed to constitute approval of a project.

For purposes of these Local Guidelines, all environmental documents must be completed as of the time of project approval.

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11.04 "Baseline" refers to the pre-project environmental conditions. By comparing the project's potential impacts to the baseline, the Lead Agency determines whether the project's impacts are substantial enough to be significant under the relevant thresholds of significance. Generally, the baseline is the environmental conditions existing on the date the environmental analysis begins, such as the date the Notice of Preparation is published for an EIR or the date the Notice of Intent to Adopt a Negative Declaration is published. However, in certain circumstances, an earlier or later date may provide a more accurate environmental analysis. The District may establish any baseline that is appropriate, including an earlier or later date, as long as the choice of baseline can be supported by substantial evidence.

11.05 "California Native American Tribe" means a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004.

11.06 "Categorical Exemption" means an exemption from CEQA for a class of projects based on a finding by the Secretary of the Resources Agency that the class of projects does not have a significant effect on the environment.

11.07 "Census-Defined Place" means a specific unincorporated land area within boundaries determined by the United States Census Bureau in the most recent decennial census.

11.08 "CEQA" means the California Environmental Quality Act, codified at California Public Resources Code sections 21000, et seq.

11.09 "Clerk" means either the "Clerk of the Board" or the "County Clerk" depending upon the county. Please refer to the "Index to Environmental Filing by County" in the Staff Summary to determine which applies.

11.10 "Community-Level Environmental Review" means either (1) or (2) below:

(1) An EIR certified for any of the following:

(a) A general plan;
(b) A revision or update to the general plan that includes at least the land use and circulation elements;
(c) An applicable community plan;
(d) An applicable specific plan; or
(e) A housing element of the general plan, if the Environmental Impact Report analyzed the environmental effects of the density of the proposed project;

(2) A Negative Declaration or Mitigated Negative Declaration adopted as a subsequent environmental review document, following and based upon an EIR on a general plan, an applicable community plan or specific plan, provided that the subsequent environmental review document is allowed by CEQA following a Master EIR or a Program EIR or is required pursuant to Public Resource section 21166.

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11.11 "Consultation" means the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties' cultural values and, where feasible, seeking agreement. Consultation between government agencies and Native American tribes shall be conducted in a way that is mutually respectful of each party's sovereignty. Consultation shall also recognize the tribes' potential needs for confidentiality with respect to places that have traditional tribal cultural significance.

11.12 "Cumulative Impacts" means two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects, whether past, present or future.

The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

11.13 "Cumulatively Considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

11.14 "Decision-Making Body" means the body within the District, e.g. the Board of Directors, which has final approval authority over the particular project.

11.15 "Developed Open Space" means land that meets each of the following three criteria:

(1) Is publicly owned, or financed in whole or in part by public funds;

(2) Is generally open to, and available for use by, the public; and

(3) Is predominantly lacking in structural development other than structures associated with open spaces, including, but not limited to, playgrounds, swimming pools, ball fields, enclosed child play areas, and picnic facilities.

Developed Open Space may include land that has been designated for acquisition by a public agency for developed open space purposes, but does not include lands acquired by public funds dedicated to the acquisition of land for housing purposes.

11.16 "Development Project" means any project undertaken for the purpose of development, including any project involving the issuance of a permit for construction or reconstruction but not a permit to operate. It does not include any ministerial projects proposed to be carried out or approved by public agencies. (Government Code section 65928.)

11.17 "Discretionary Project" means a project for which approval requires the exercise of independent judgment, deliberation, or decision-making on the part of the District. To

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determine whether a project is discretionary, the key question is whether the public agency can use its subjective judgment to decide whether and how to carry out or approve a project.

11.18 "District" means the Rancho California Water District.

11.19 "EIR" means Environmental Impact Report, a detailed written statement setting forth the environmental effects and considerations pertaining to a project. EIR may mean a Draft or a Final version of an EIR, a Project EIR, a Subsequent EIR, a Supplemental EIR, a Tiered EIR, a Staged EIR, a Program EIR, a Redevelopment EIR, a Master EIR, or a Focused EIR.

11.20 "Emergency" means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, landslide or other natural disaster, as well as such occurrences as riot, war, terrorist incident, accident or sabotage.

11.21 "Endangered, Rare or Threatened Species" means certain species or subspecies of animals or plants. A species or subspecies of animal or plant is "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. A species or subspecies of animal or plant is "Threatened" when it is listed as a threatened species pursuant to the California Endangered Species Act or the Federal Endangered Species Act. A species or subspecies of animal or plant is "Rare" when either:

(1) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or

(2) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.

For purposes of analyzing impacts to biological resources, a species of animal or plant shall be presumed to be endangered, rare or threatened if it is listed under the California Endangered Species Act or the Federal Endangered Species Act.

This definition shall not include any species of the Class Insecta which is a pest whose protection under the provisions of CEQA would present an overwhelming and overriding risk to man as determined by the Director of Food and Agriculture (with regard to economic pests) or the Director of Health Services (with regard to health risks).

11.22 "Environment" means the physical conditions which exist in the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. The area involved shall

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be the area in which significant effects would occur either directly or indirectly as a result of the project. The "environment" includes both natural and man-made conditions.

11.23 "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors.

11.24 "Final EIR" means an EIR containing the information contained in the Draft EIR, comments either verbatim or in summary received in the review process, a list of persons commenting, and the response of the District to the comments received.

11.25 "Greenhouse Gases" include, but are not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

11.26 "Guidelines" or "Local Guidelines" means the District's Local Guidelines for implementing the California Environmental Quality Act.

11.27 "Highway" shall have the same meaning as defined in Section 360 of the Vehicle Code.

11.28 "Historical Resources" include:

Resources listed in, or eligible for listing in, the California Register of Historical Resources shall be considered historical resources.

A resource may be listed in the California Register if it meets any of the following National Register of Historic Places criteria:

(a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
(b) Is associated with the lives of persons important in our past;
(c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
(d) Has yielded, or may be likely to yield, information important in prehistory or history.

A resource may also be listed in the California Register if it is identified as significant in an historical resource survey that meets all of the following criteria:

(a) The survey has been or will be included in the State Historic Resources Inventory;
(b) The survey and the survey documentation were prepared in accordance with office procedures and requirements; and
(c) The resource is evaluated and determined by the office to have a significance rating of Category 1 to 5 on DPR Form 523.

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Resources included on a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution, or identified as significant in a historical resource survey (as described above) are presumed to be historically or culturally significant, unless a preponderance of evidence demonstrates that they are not historically or culturally significant.

Any of the following may be considered historically significant: any object, building, structure, site, area, place, record or manuscript which a Lead Agency determines, based upon substantial evidence in light of the whole record, to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or cultural annals of California.

The Lead Agency is not precluded from determining that a resource is a historical resource, as defined in Public Resources Code sections 5020.1(j) or 5024.1, even if it is: (a) not listed in, or is not determined to be eligible for listing in, the California Register of Historical Resources; (b) not included in a local register of historical resources; or (c) not identified in a historical resources survey.

11.29 "Infill Site" means a site in an urbanized area that meets either of the following criteria:

(1) The site has been previously developed for qualified urban uses; or

(2) The site has not been previously developed for qualified urban uses and both (a) and (b) are met:

(a) the site is immediately adjacent to parcels that are developed with qualified urban uses, or
1. at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with existing qualified urban uses at the time the Lead Agency receives an application for an approval; and
2. the remaining 25 percent of the perimeter of the site adjoins parcels that had been previously developed for qualified urban uses;

(b) No parcel within the site has been created within the past 10 years unless the parcel was created as a result of the plan of a redevelopment agency.

(Public Resources Code section 21061.3.)

11.30 "Initial Study" means a preliminary analysis conducted by the District to determine whether an EIR, a Negative Declaration, or a Mitigated Negative Declaration must be prepared or to identify the significant environmental effects to be analyzed in an EIR.

11.31 "Jurisdiction by Law" means the authority of any public agency to grant a permit or other entitlement for use, to provide funding for the project in question or to exercise authority over resources which may be affected by the project.

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The District will have jurisdiction by law over a project when the District has primary and exclusive jurisdiction over the site of the project, the area in which the major environmental effects will occur, or the area in which reside those citizens most directly concerned by any such environmental effects.

11.32 "Land Disposal Facility" means a hazardous waste facility where hazardous waste is disposed in, on, or under land. (Health and Safety Code section 25199.1(d).)

11.33 "Large Treatment Facility" means a treatment facility which treats or recycles one thousand (1,000) or more tons of hazardous waste during any one month of the current reporting period commencing on or after July 1, 1991. (Health and Safety Code section 25205.1(d).)

11.34 "LCI" refers to the Governor's Office of Land Use and Climate Innovation (formerly known as the Office of Planning and Research, or OPR).

11.35 "Lead Agency" means the public agency which has the principal responsibility for preparing environmental documents and for carrying out or approving a project when more than one public agency is involved with the same underlying activity.

11.36 "Low- and Moderate-Income Households" means persons and families of low or moderate income as defined in Section 50093 of the Health and Safety Code—i.e., persons and families whose income does not exceed 120% of area median income, adjusted for family size by the Department of Housing and Community Development, in accordance with adjustment factors adopted and amended from time to time by the United States Department of Housing and Urban Development pursuant to Section 8 of the United States Housing Act of 1937. (Public Resources Code section 21159.20(d); State CEQA Guidelines section 15191(f).)

11.37 "Low-Income Households" means households of persons and families of very low and low income. Low-income persons or families are those eligible for financial assistance from governmental agencies for occupants of state-funded housing. Very low income persons are those whose incomes do not exceed the qualifying limits for very low income families as established and amended pursuant to Section 8 of the United States Housing Act of 1937. Such limits are published and updated in the California Code of Regulations. (Public Resources Code section 21159.20(c); Health and Safety Code sections 50105 and 50106; State CEQA Guidelines section 15191(g).)

11.38 "Low-Level Flight Path" means any flight path for any aircraft owned, maintained, or under the jurisdiction of the United States Department of Defense that flies lower than 1,500 feet above ground level, as indicated in the United States Department of Defense Flight Information Publication, "Area Planning Military Training Routes: North and South America (AP/1B)" published by the United States National Imagery and Mapping Agency or its successor.

11.39 "Lower Income Households" is defined in Health and Safety Code section 50079.5 to mean any of the following:

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11.40 "Lower income households" means persons and families whose income does not exceed the qualifying limits for lower income families as established and amended from time to time pursuant to Section 8 of the United States Housing Act of 1937;

(2) "Very low income households" means persons and families whose incomes do not exceed the qualifying limits for very low income families as defined in Health and Safety Code section 50105; or

(3) "Extremely low income households" means persons and families whose incomes do not exceed the qualifying limits for extremely low income families as defined in Health and Safety Code section 50106.

11.41 "Major Transit Stop" means a site containing an existing rail or bus rapid transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of twenty (20) minutes or less during the morning and afternoon peak commute periods. (Pub. Resources Code, § 21064.3; see also Pub. Resources Code, § 21060.2; State CEQA Guidelines section 15191(i).)

11.42 "Metropolitan Planning Organization" or "MPO" means a federally-designated agency that provides transportation planning and programming in metropolitan areas. A MPO is designated for each urban area that has been defined in the most recent federal census as having a population of more than 50,000 people. There are 18 federally-designated MPOs in California. Non-urbanized (rural) areas do not have a designated MPO.

11.43 "Military Impact Zone" means any area, including airspace, that meets both of the following criteria:

(1) Is located within two miles of a military installation, including, but not limited to, any base, military airport, camp, post, station, yard, center, homeport facility for a ship, or any other military activity center that is under the jurisdiction of the United States Department of Defense; and

(2) Covers greater than 500 acres of unincorporated land, or greater than 100 acres of city incorporated land.

11.44 "Military Service" means the United States Department of Defense or any branch of the United States Armed Forces.

11.45 "Ministerial" describes a governmental decision involving little or no personal judgment by the public official as to the wisdom or manner of carrying out the project. The public official merely applies the law to the facts as presented but uses no special discretion or standards or objective measurements, and the public official cannot use personal, subjective judgment in deciding whether or how the project should be carried out. Common examples of ministerial permits include automobile registrations, dog licenses, and marriage licenses. A building permit is ministerial if the ordinance requiring the permit limits the public official to determining whether the zoning allows the structure to be built in the requested location, the structure would meet the strength

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requirements in the Uniform Building Code, and the applicant has paid his fee. (Public Resources Code section 21080(b)(1).)

11.46 "Mitigated Negative Declaration" or "MND" means a Negative Declaration prepared for a Project when the Initial Study has identified potentially significant effects on the environment, but: (1) revisions in the project plans or proposals made, or agreed to, by the applicant before the proposed Negative Declaration and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

11.47 "Mitigation" includes avoiding the environmental impact altogether by not taking a certain action or parts of an action, minimizing impacts by limiting the degree or magnitude of the action and its implementation, rectifying the impact by repairing, rehabilitating or restoring the impacted environment, reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, or compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements.

11.48 "Negative Declaration" or "ND" means a written statement by the District briefly describing the reasons that a proposed project, not exempt from CEQA, will not have a significant effect on the environment and, therefore, does not require the preparation of an EIR.

11.49 "Notice of Completion" means a brief report filed with the Office of Land Use and Climate Innovation by the District when it is the Lead Agency as soon as it has completed a Draft EIR and is prepared to send out copies for review.

11.50 "Notice of Determination" means a brief notice to be filed by the District when it approves or determines to carry out a project which is subject to the requirements of CEQA.

11.51 "Notice of Exemption" means a brief notice which may be filed by the District when it has approved or determined to carry out a project, and it has determined that the project is exempt from the requirements of CEQA. Such a notice may also be filed by an applicant where such a determination has been made by a public agency which must approve the project.

11.52 "Notice of Preparation" means a brief notice sent by a Lead Agency to notify the Responsible Agencies, Trustee Agencies, the Office of Land Use and Climate Innovation, and involved federal agencies that the Lead Agency plans to prepare an EIR for a project. The purpose of this notice is to solicit guidance from those agencies as to the scope and content of the environmental information to be included in the EIR. Public agencies are free to develop their own formats for this notice.

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11.53 "Oak" means a native tree species in the genus Quercus, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Public Resources Code section 4526, and that is five (5) inches or more in diameter at breast height. (Public Resources Code section 21083.4(a).)

11.54 "Oak Woodlands" means an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover. (Fish & Game Code section 1361(h).)

11.55 "Offsite Facility" means a facility that serves more than one generator of hazardous waste. (Public Resources Code section 21151.1(h).)

11.56 "Person" includes any person, firm, association, organization, partnership, business, trust, corporation, company, city, county, city and county, town, the state, and any of the agencies which may be political subdivisions of such entities, and, to the extent permitted by federal law, the United States, or any of its agencies or political subdivisions**.**

11.57 "Pipeline" as defined in these Local Guidelines depends on the context. Please see Local Guidelines Sections 3.10 and 3.11 for specific definitions.

11.58 "Private Project" means a project which will be carried out by a person other than a governmental agency, but which will need a discretionary approval from the District. Private projects will normally be those listed in subsections (2) and (3) of Local Guidelines Section 11.59.

11.59 "Project" means the whole of an action or activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect change in the environment, and is any of the following:

(1) A discretionary activity directly undertaken by the District including but not limited to public works construction and related activities, clearing or grading of land, or improvements to existing public structures;

(2) A discretionary activity which involves a public agency's issuance to a person of a lease, permit, license, certificate, or other entitlement for use, or which is supported, in whole or in part, through contracts, grants, subsidies, loans or other forms of assistance by the District; or

(3) A discretionary project proposed to be carried out or approved by public agencies, including but not limited to the enactment and amendment of local General Plans or elements thereof, the enactment of zoning ordinances, the issuance of zoning variances, the issuance of conditional use permits and the approval of tentative subdivision maps.

The presence of any real degree of control over the manner in which a project is completed makes it a discretionary project.

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The term "project" refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term "project" does not mean each separate governmental approval.

11.60 "Project-Specific Effects" means all the direct or indirect environmental effects of a project other than cumulative effects and growth-inducing effects. (Public Resources Code section 21065.3; State CEQA Guidelines section 15191(j).)

11.61 "Public Water System" means a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections. A public water system includes all of the following: (A) Any collection, treatment, storage, and distribution facility under control of the operator of the system which is used primarily in connection with the system; (B) Any collection or pretreatment storage facility not under the control of the operator that is used primarily in connection with the system; (C) Any person who treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption. (State CEQA Guidelines section 15155.)

11.62 "Qualified Urban Use" means any residential, commercial, public institutional, transit or transportation passenger facility, or retail use, or any combination of those uses. (Public Resources Code section 21072; State CEQA Guidelines section 15191(k).)

11.63 "Residential" means a use consisting of either residential units only or residential units and primarily neighborhood-serving goods, services, or retail uses that do not exceed 15% of the total floor area of the project. (State CEQA Guidelines section 15191(l).) Residential, pursuant to Public Resources Code section 21159.24, shall mean a use consisting of either of the following:

(1) Residential units only.

(2) Residential units and primarily neighborhood-serving goods, services, or retail uses that do not exceed 25 percent of the total building square footage of the project.

11.64 "Responsible Agency" means a public agency which proposes to carry out or approve a project for which a Lead Agency has prepared the environmental documents. For the purposes of CEQA, the term "Responsible Agency" includes all federal, state, regional and local public agencies other than the Lead Agency which have discretionary approval power over the project.

11.65 "Riparian areas" mean those areas transitional between terrestrial and aquatic ecosystems and that are distinguished by gradients in biophysical conditions, ecological processes, and biota. A riparian area is an area through which surface and subsurface hydrology connect waterbodies with their adjacent uplands. A riparian area includes those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic ecosystems. A riparian area is adjacent to perennial, intermittent, and ephemeral streams, lakes, and estuarine-marine shorelines.

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11.66 "Roadway" means a roadway as defined pursuant to Section 530 of the Vehicle Code and the previously graded and maintained shoulder that is within a roadway right-of-way of no more than five feet from the edge of the roadway.

11.67 "Significant Effect" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the activity including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

11.68 "Significant Value as a Wildlife Habitat" includes wildlife habitat of national, statewide, regional, or local importance; habitat for species protected by the federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531, et seq.), the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code), or the Native Plant Protection Act (Chapter 10 (commencing with Section 1900) of Division 2 of the Fish and Game Code); habitat identified as candidate, fully protected, sensitive, or species of special status by local, state, or federal agencies; or habitat essential to the movement of resident or migratory wildlife.

11.69 "Special Use Airspace" means the land area underlying the airspace that is designated for training, research, development, or evaluation for a military service, as that land area is established by the United States Department of Defense Flight Information Publication, "Area Planning: Special Use Airspace: North and South America (AP/1A)" published by the United States National Imagery and Mapping Agency or its successor.

11.70 "Staff" means the General Manager or his or her designee**.**

11.71 "Standard" means a standard of general application that is all of the following:

(1) A quantitative, qualitative or performance requirement found in a statute, ordinance, resolution, rule, regulation, order, or other standard of general application;

(2) Adopted for the purpose of environmental protection;

(3) Adopted by a public agency through a public review process;

(4) Governs the same environmental effect which the change in the environment is impacting; and

(5) Governs the jurisdiction where the project is located.

The definition of "standard" includes any thresholds of significance adopted by the District which meet the requirements of this Section.

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If there is a conflict between standards, the District shall determine which standard is appropriate based upon substantial evidence in light of the whole record.

11.72 "State CEQA Guidelines" means the Guidelines for Implementation of the California Environmental Quality Act as adopted by the Secretary of the California Natural Resources Agency as they now exist or hereafter may be amended. (California Administrative Code, Title 14, sections 15000, et seq.)

11.73 "Substantial Evidence" means reliable information on which a fair argument can be based to support an inference or conclusion, even though another conclusion could be drawn from that information. "Substantial evidence" includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts. "Substantial evidence" does not include argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment.

11.74 "Sustainable Communities Strategy" is an element of a Regional Transportation Plan, which must be adopted by the Metropolitan Planning Organization for the region. (See Local Guidelines Section 11.40.) The Sustainable Communities Strategy is an integrated land use and transportation plan intended to reduce greenhouse gases. The Sustainable Communities Strategy includes various components such as: consideration of existing densities and uses within the region, identification of areas within the region that can accommodate an eight-year projection of the region's housing needs, development of projections for growth in the region, identification of existing transportation networks, and preparation of a forecast for development pattern for the region that can be integrated with transportation networks.

11.75 "Tiering" means the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs or ultimately site-specific EIRs incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared. Tiering is appropriate when the sequence of EIRs is:

(a) From a general plan, policy, or Program EIR to a program, plan, or policy EIR of lesser scope or to a site-specific EIR; or

(b) From an EIR on a specific action at an early stage to a subsequent EIR or a supplement to an EIR at a later stage. Tiering in such cases is appropriate when it helps the Lead Agency to focus on the issues which are ripe for decision and exclude from consideration issues already decided or not yet ripe.

(Public Resources Code sections 21003, 21061 and 21100.)

11.76 "Transit Priority Area" means an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the

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planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

11.77 "Transit Priority Project" means a mixed use project that is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy for which the California Air Resources Board has accepted a Metropolitan Planning Organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets. Such a project may be exempt from CEQA if a detailed laundry list of requirements is met. To qualify for the exemption, the Transit Priority Project must:

(1) contain at least 50 percent residential use based on total building square footage;

(2) if the project contains between 26 percent and 50 percent non-residential uses, the floor-to-area ratio (FAR) must be at least 0.75;

(3) have a minimum net density of 20 dwelling units per acre;

(4) be located within a half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan; and

(5) meet all the requirements of Public Resources Code section 21155.1.

11.78 "Transportation Facilities" includes major local arterials and public transit within five (5) miles of the project site, and freeways, highways, and rail transit service within ten (10) miles of the project site.

11.79 "Tribal Cultural Resources" are either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(a) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
(b) Included in a local register of historic resources as defined in subdivision (k) of Public Resources Code section 5020.1.

(2) A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this definition, the Lead Agency shall consider the significance of the resource to a California Native American tribe.

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A cultural landscape that meets the criteria set forth above is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

A historic resource described in Public Resources Code section 21084.1, a unique archaeological resource as defined in subdivision (g) of Public Resources Code section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Public Resources Code section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of Tribal cultural resources.

11.80 "Trustee Agency" means a State agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. Trustee Agencies may include, but are not limited to, the following:

(a) The California Department of Fish and Wildlife ("DFW") with regard to the fish and wildlife of the state, designated rare or endangered native plants, and game refuges, ecological reserves, and other areas administered by DFW;
(b) The State Lands Commission with regard to state owned "sovereign" lands such as the beds of navigable waters and state school lands;
(c) The State Department of Parks and Recreation with regard to units of the State Park System;
(d) The University of California with regard to sites within the Natural Land and Water Reserve System; and/or
(e) The State Water Resources Control Board with respect to surface waters.

11.81 "Urban Growth Boundary" means a provision of a locally adopted general plan that allows urban uses on one side of the boundary and prohibits urban uses on the other side of the boundary.

11.82 "Urbanized Area" means either of the following:

(1) An incorporated city that either by itself or in combination with two contiguous incorporated cities has a population of at least one hundred thousand (100,000) persons;

(2) An unincorporated area that meets both of the following requirements:

(a) The unincorporated area is either:
(i) completely surrounded by one or more incorporated cities, has a population of at least 100,000 persons either by itself or in combination with the surrounding incorporated city or cities, and has a population density that at least equals the population density of the surrounding city or cities; or
(ii) located within an urban growth boundary and has an existing residential population of at least five thousand (5,000) persons per square mile. An "urban growth boundary" means a

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provision of a locally adopted general plan that allows urban uses on one side of the boundary and prohibits urban uses on the other side.

(b) The board of supervisors with jurisdiction over the unincorporated area has taken all three of the following steps:

1. Prepared a draft document by which the board would find that the general plan, zoning ordinance, and related policies and programs applicable to the unincorporated area are consistent with principles that encourage compact development in a manner that promotes efficient transportation systems, economic growth, affordable housing, energy efficiency, and an appropriate balance of jobs and housing, and protects the environment, open space and agricultural areas;
2. Submitted the draft document to the Office of Land Use and Climate Innovation and allowed LCI thirty (30) days to submit comments on the draft finding to the board; and
3. At least thirty (30) days after submitting the draft document to the Office of Land Use and Climate Innovation, the board has adopted a final finding in substantial conformity with the draft finding described in the draft document.

(Public Resources Code sections 21083, 21159.20-21159.24; State CEQA Guidelines section 15191(m).)

11.83 "Water Acquisition Plans" means any plans for acquiring additional water supplies prepared by the public water system or a city or county Lead Agency pursuant to subdivision (a) of section 10911 of the Water Code.

11.84 "Water Assessment" or "Water Supply Assessment" means the water supply assessment that must be prepared by the governing body of a public water system, or a city or county, pursuant to and in compliance with sections 10910 to 10915 of the Water Code, and that includes, without limitation, the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g) of section 10910 of the Water Code.

11.85 "Water Demand Project" means any one of the following:

(A) A residential development of more than 500 dwelling units;

(B) A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;

(C) A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;

(D) A hotel or motel, or both, having more than 500 rooms;

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(E) An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;

Except, a proposed photovoltaic or wind energy generation facility approved on or after October 8, 2011, is not a Water Demand Project if the facility would demand no more than 75 acre-feet of water annually.

(F) A mixed-use project that includes one or more of the projects specified in subdivisions (A); (B), (C), (D), (E), or (G) of this section;

(G) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project; or

(H) For public water systems with fewer than 5,000 service connections, a project that meets the following criteria:

(1) A proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of a public water system's existing service connections; or

(2) A mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

(State CEQA Guidelines section 15155.)

11.86 "Waterway" means a bay, estuary, lake, pond, river, slough, or a perennial, intermittent, or ephemeral stream, lake, or estuarine-marine shoreline.

11.87 "Wetlands" has the same meaning as that term is construed in the regulations issued by the United States Army Corps of Engineers pursuant to the Clean Water Act. Thus, "wetlands" means areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (Public Resources Code section 21159.21(d), incorporating Title 33, Code of Federal Regulations, section 328.3.)

11.88 "Wildlife Habitat" means the ecological communities upon which wild animals, birds, plants, fish, amphibians, and invertebrates depend for their conservation and protection. (Public Resources Code section 21159.21.)

11.89 "Zoning Approval" means any enactment, amendment, or appeal of a zoning ordinance; granting of a conditional use permit or variance; or any other form of land

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use, subdivision, tract, or development approval required from the city or county having jurisdiction to permit the particular use of the property.

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12. FORMS

See forms A – S which accompany these Guidelines.

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NOTICE OF EXEMPTION

TO: ☐	Office of Land Use and Climate Innovation State Clearinghouse P. O. Box 3044, Room 113 Sacramento, CA 95812-3044	FROM: (Public Agency)	Name: Address: Telephone:
☐	Clerk of the Board of Supervisors or County Clerk (Include County name) Address:		

1.	Project Title:	
2.	Project Applicant (include address, telephone number and email address):	
3.	Project Location – Identify street address and cross streets or attach a map showing project site (preferably a USGS 15' or 7 1/2' topographical map identified by quadrangle name):	
4.	(a) Project Location – City:	(b) Project Location – County:
5.	Description of nature, purpose, and beneficiaries of Project:	
6.	Name of Public Agency approving project:	
7.	Name of Person or Agency undertaking the project, including any person undertaking an activity that receives financial assistance from the Public Agency as part of the activity or the person receiving a lease, permit, license, certificate, or other entitlement of use from the Public Agency as part of the activity:	
8.	Exempt status: (check one)	
	(a) ☐ Ministerial project.	(Pub. Resources Code § 21080(b)(1); State CEQA Guidelines § 15268)
	(b) ☐ Not a project.	(State CEQA Guidelines §§ 15050(c)(2)-(3), 15378)
	(c) ☐ Declared Emergency	(Pub. Resources Code § 21080(b)(3); State CEQA Guidelines § 15269(a))
	(d) ☐ Emergency Project.	(Pub. Resources Code § 21080(b)(4); State CEQA Guidelines § 15269(b),(c))

(e) ☐ Categorical Exemption. State type and section number:	
(f) ☐ Statutory Exemption. State Code section number:	
(g) ☐ Other. Explanation:	(State CEQA Guidelines § 15061(b)(3) Common Sense exemption)
9. Reason why project was exempt:	

10. Lead Agency Contact Person: Telephone:	
11. If filed by applicant: Attach Certificate of Determination (Form "B") before filing.	
12. Was a public hearing held by the Lead Agency to consider the exemption? Yes ☐ No ☐ If yes, the date of the public hearing was:	

Date:

_____
Signature

Name:

Title:

☐ Signed by Lead Agency ☐ Signed by Applicant

Date Received for Filing:

(Clerk Stamp Here)

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

CERTIFICATE OF DETERMINATION

(If Notice of Exemption filed by Project Applicant, Project Applicant must Attach to Notice of Exemption)

1.	Name or description of project:		
2.	Project Location – Identify street address and cross streets or attach a map showing project site (preferably a USGS 15' or 7 1/2' topographical map identified by quadrangle name):		
3.	Entity or person undertaking project:	A.	
		B. Other (Private)	
		(1) Name	
		(2) Address	
4.	Staff Determination: The Lead Agency's Staff, having undertaken and completed a preliminary review of this project in accordance with the California Environmental Quality Act (CEQA) and the Lead Agency's Local Guidelines for Implementing CEQA has concluded that this project does not require further environmental assessment because:		
a. ☐	The proposed action does not constitute a project under CEQA.		
b. ☐	The project is a Ministerial Project.		
c. ☐	The project is an Emergency Project.		
d. ☐	The project constitutes a feasibility or planning study.		
e. ☐	The project is categorically exempt.		
	Applicable Exemption Class:		
f. ☐	The project is statutorily exempt.		
	Applicable Exemption:		
g. ☐	The project is otherwise exempt on the following basis:		
h. ☐	The project involves another public agency which constitutes the Lead Agency.		
	Name of Lead Agency:		

Date: Staff:

ENVIRONMENTAL IMPACT ASSESSMENT
(STAFF RECOMMENDATION FOR INTERNAL USE ONLY)

1.	Name or description of project:	
2.	Project Location – Identify street address and cross streets or attach a map showing project site (preferably a USGS 15' or 7 1/2' topographical map identified by quadrangle name):	
3.	Entity or Person undertaking project:	
	A.	
	B. Other (Private)	
	(1) Name:	
	(2) Address:	

4. Staff Determination:

The Lead Agency's staff, having undertaken and completed an Initial Study of this project in accordance with the Lead Agency's "Local Guidelines for Implementing the California Environmental Quality Act (CEQA)" for the purpose of ascertaining whether the proposed project may have a significant effect on the environment, has reached the following conclusion:

a. ☐	The project could not have a significant effect on the environment; therefore, a Negative Declaration should be adopted.
b. ☐	The Initial Study identified potentially significant effects on the environment but revisions in the project plans or proposals made by or agreed to by the applicant would avoid the effects, or mitigate the effects to a point where clearly no significant effects would occur; therefore a Mitigated Negative Declaration should be adopted.
c. ☐	The project may have a significant effect on the environment; therefore, an Environmental Impact Report will be required.

Date: Staff:

NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION/ MITIGATED NEGATIVE DECLARATION

Notice is hereby given that the public agency named below has completed an Initial Study of the following described project at the following location:	
Public Agency:	
Project Name:	
Project Description:	
Project Location – Identify street address and cross streets or attach a map showing project site (preferably a USGS 15' or 7 1/2' topographical map identified by quadrangle name):	

This Initial Study was completed in accordance with the Lead Agency's Guidelines for Implementing the California Environmental Quality Act. This Initial Study was undertaken for the purpose of deciding whether the project may have a significant effect on the environment. On the basis of such Initial Study, the Lead Agency's Staff has concluded that the project will not have a significant effect on the environment, and has therefore prepared a Draft Negative Declaration/Mitigated Negative Declaration. The Initial Study reflects the independent judgment of the Lead Agency.

☐	The Project site IS on a list compiled pursuant to Government Code section 65962.5.
☐	The Project site IS NOT on a list compiled pursuant to Government Code section 65962.5.
☐	The proposed project IS considered a project of statewide, regional or areawide significance.
☐	The proposed project IS NOT considered a project of statewide, regional or areawide significance.
☐	The proposed project WILL affect highways or other facilities under the jurisdiction of the State Department of Transportation.
☐	The proposed project WILL NOT affect highways or other facilities under the jurisdiction of the State Department of Transportation.
☐	A scoping meeting WILL be held by the Lead Agency.
☐	A scoping meeting WILL NOT be held by the Lead Agency.

If the project meets the criteria requiring the scoping meeting, or if the agency voluntarily elects to hold such a meeting, the date, time and location of the scoping meeting are as follows:

Date:	Time:	Location:

Copies of the Initial Study and Draft Negative Declaration/Mitigated Negative Declaration are on file and are available for public review at the Lead Agency's office, located at:

The proposed Negative Declaration or Mitigated Negative Declaration can be obtained in electronic format by the following method:

Lead Agency address:

Comments will be received from to

Any person wishing to comment on this matter must submit such comments, in writing, to the Lead Agency prior to . Comments of all Responsible Agencies are also requested.

The Lead Agency will consider the project and the Draft Negative Declaration/Mitigated Negative Declaration at its meeting on:	
Date:	Time:
If the Lead Agency finds that the project will not have a significant effect on the environment, it may adopt the Negative Declaration/Mitigated Negative Declaration. This means that the Lead Agency may proceed to consider the project without the preparation of an Environmental Impact Report.	

(Clerk Stamp Here)

NEGATIVE DECLARATION

1.	Name or description of project:	
2.	Project Location – Identify street address and cross streets or attach a map showing project site (preferably a USGS 15' or 7 1/2' topographical map identified by quadrangle name):	
3.	Entity or Person undertaking project:	
	A. Entity	
	(1) Name:	
	(2) Address:	
	B. Other (Private)	
	(1) Name:	
	(2) Address:	

The Lead Agency, having reviewed the Initial Study of this proposed project, having reviewed the written comments received prior to the public meeting of the Lead Agency, and having reviewed the recommendation of the Lead Agency's Staff, does hereby find and declare that the proposed project will not have a significant effect on the environment. A brief statement of the reasons supporting the Lead Agency's findings are as follows:

The Lead Agency hereby finds that the Negative Declaration reflects its independent judgment. A copy of the Initial Study is attached.

The location and custodian of the documents and any other material which constitute the record of proceedings upon which the Lead Agency based its decision to adopt this Negative Declaration are as follows:

Phone No.:	

Clerk's Stamp

NOTICE OF DETERMINATION

TO:	☐ Clerk of the Board of Supervisors or ☐ County Clerk Address:	FROM:	Public Agency/Lead Agency Name: Address: Contact: Phone:
			Email:
TO:	☐ Office of Land Use and Climate Innovation State Clearinghouse 1400 Tenth Street, Rm. 113 Sacramento, CA 95814	Lead Agency (if different from above)	
		Address:	
		Contact:	
		Phone:	

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (If submitted to SCH):
Project Title:
Project Applicant (include address, telephone number and email address):
Specific Project Location – Identify street address and cross street or attach a map showing project site (preferably a USGS 15' or 7 ½' topographical map identified by quadrangle name):
General Project Location (City and/or County):
Project Description:

Identify the person or entity undertaking the project, including any private applicant, any other person undertaking an activity that receives financial assistance from the Public Agency as part of the project, and any person receiving a lease, permit, license, certificate, or other entitlement of use from the Public Agency as part of the project.

This is to advise that the (☐ Lead Agency or ☐ Responsible Agency) has approved the above described project on and has made the following determinations regarding the above described project:

1.	The project [☐ will ☐ will not] have a significant effect on the environment.	
2. ☐	An Environmental Impact Report was prepared and certified for this project pursuant to the provisions of CEQA and reflects the independent judgment of the Lead Agency.	
☐	A Negative Declaration was prepared for this project pursuant to the provisions of CEQA and reflects the independent judgment of the Lead Agency.	
☐	A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA and reflects the independent judgment of the Lead Agency.	
3. ☐	Mitigation measures [☐ were ☐ were not]made a condition of the approval of the project.	
4. ☐	A Mitigation Monitoring or Reporting Plan [☐ was ☐ was not] adopted for this project.	
5. ☐	A Statement of Overriding Considerations [☐ was ☐ was not] adopted for this project.	
6. ☐	Findings [☐ were ☐ were not] made pursuant to the provisions of CEQA.	
	This is to certify that the Final EIR with comments and responses and record of project approval, or the Negative Declaration, is available to General Public at:	
	Custodian:	Location:

Date:	_____ **Name** **Title**

Clerk's File Stamp:

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

NOTICE OF PREPARATION

TO:	FROM: Name: Address: Telephone:

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report.

The _____ will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The Project description, location, and the potential environmental effects are contained in the attached materials.

☐	A copy of the Initial Study IS attached.
☐	A copy of the Initial Study IS NOT attached.
☐	The proposed project IS considered a project of statewide, regional or areawide significance.
☐	The proposed project IS NOT considered a project of statewide, regional or areawide significance.
☐	The proposed project WILL affect highways or other facilities under the jurisdiction of the State Department of Transportation.
☐	The proposed project WILL NOT affect highways or other facilities under the jurisdiction of the State Department of Transportation.
☐	A scoping meeting WILL be held by the Lead Agency.
☐	A scoping meeting WILL NOT be held by the Lead Agency.

If the project meets the criteria requiring the scoping meeting, or if the agency voluntarily elects to hold such a meeting, the date, time and location of the scoping meeting are as follows:

Date:	Time:	Location:

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice.

Please send your response to at the address shown above. We will need the name of a contact person in your agency.

Project Title:	
Project Location – Specific: Identify street address and cross street or attach a map showing project site (preferably a U.S.G.S. 15' or 7 ½' topographical map identified by quadrangle name):	
Project Description:	
Project Applicant (if any):	
California Environmental Protection Agency Hazardous Waste List (if applicable):	

Date:	Signature:	_____
	Name:	
	Title:	
	Telephone:	

Consulting firm retained to prepare draft EIR (if applicable):

Name:	
Address:	
City/State/Zip:	
Contact Person:	

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

NOTICE OF COMPLETION & ENVIRONMENTAL DOCUMENT TRANSMITTAL

SCH No.:

For U.S. Mail: State Clearinghouse, PO Box 3044, Sacramento, CA 95812-3044; (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

PROJECT TITLE		
LEAD AGENCY		CONTACT PERSON
MAILING ADDRESS		TELEPHONE
CITY AND STATE	ZIP CODE	COUNTY

PROJECT LOCATION				
COUNTY	CITY/NEAREST COMMUNITY			
LAT. / LONG.:				
CROSS STREETS	ZIP CODE		TOTAL ACRES	
ASSESSOR'S PARCEL NO.	SECTION	TOWNSHIP	RANGE	BASE
WITHIN 2 MILES: STATE HIGHWAY NO.		WITHIN 2 MILES: WATERWAYS		
WITHIN 2 MILES: AIRPORTS	WITHIN 2 MILES: RAILWAYS		WITHIN 2 MILES: SCHOOLS	

DOCUMENT TYPE

CEQA				NEPA		OTHER	
☐	NOP	☐	Supplemental EIR	☐	NOI	☐	Joint Document
☐	Early Cons	☐	Subsequent EIR	☐	EA	☐	Final Document
☐	Neg Dec	☐	(Prior SCH No.):	☐	Draft EIS	☐	Other:
☐	Mit Neg Dec	☐	Other:	☐	FONSI		
☐	Draft EIR						

LOCAL ACTION TYPE

☐	General Plan Update	☐	Specific Plan	☐	Rezone	☐	Annexation
☐	General Plan Amendment	☐	Master Plan	☐	Prezone	☐	Redevelopment
☐	General Plan Element	☐	Planned Unit Development	☐	Use Permit	☐	Coastal Permit
☐	Community Plan	☐	Site Plan	☐	Land Division (Subdivision, etc.)	☐	Other:

DEVELOPMENT TYPE

☐	Residential:	Units:	Acres:		☐	Water Facilities:	Type:	MGD:	
☐	Office:	Sq. ft.	Acres:	Employees:	☐	Transportation:	Type:		
☐	Commercial:	Sq. ft.	Acres:	Employees:	☐	Mining:	Mineral:		
☐	Industrial:	Sq. ft.	Acres:	Employees:	☐	Power:	Type:	MW:	
☐	Educational:				☐	Waste Treatment:			
☐	Recreational:				☐	Hazardous Waste:			
					☐	Other:			

PROJECT ISSUES DISCUSSED IN DOCUMENT:					
☐	Aesthetic/Visual	☐	Geologic/Seismic	☐	Toxic/Hazardous
☐	Agricultural Land	☐	Minerals	☐	Traffic/Circulation
☐	Air Quality	☐	Noise	☐	Vegetation
☐	Archaeological/Historical	☐	Population/Housing Balance	☐	Water Quality
☐	Biological Resources	☐	Public Services/Facilities	☐	Water Supply/Groundwater
☐	Coastal Zone	☐	Recreation/Parks	☐	Wetland/Riparian
☐	Drainage/Absorption	☐	Schools/Universities	☐	Wildlife
☐	Economic/Jobs	☐	Septic Systems	☐	Growth Inducement
☐	Fiscal	☐	Sewer Capacity	☐	Land Use
☐	Flood Plain/Flooding	☐	Soil Erosion/Compaction/Grading	☐	Cumulative Effects
☐	Forest Land/Fire Hazard	☐	Solid Waste	☐	Greenhouse Gases
☐	Other:				

PRESENT LAND USE/ZONING/GENERAL PLAN USE DESIGNATION:

PROJECT DESCRIPTION (*please use a separate page if necessary*)

NOTE: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice or Preparation or previous draft document) please fill in.

Revised 2010

	Reviewing Agencies Checklist *Appendix C* Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an **"X."** If you have already sent your document to the agency please denote that with an **"S."**		
	Air Resources Board		Native American Heritage Commission
	Boating & Waterways, Department of		Office of Historic Preservation
	California Emergency Management Agency		Office of Public School Construction
	California Highway Patrol		Parks & Recreation, Department of
	Caltrans District #		Pesticide Regulation, Department of
	Caltrans Division of Aeronautics		Public Utilities Commission
	Caltrans Planning		Regional WQCB #
	Central Valley Flood Protection Board		Resources Agency
	Coachella Valley Mountains Conservancy		Resources Recycling and Recovery, Department of
	Coastal Commission		S.F. Bay Conservation & Development Commission
	Colorado River Board		San Gabriel & Lower Los Angeles Rivers & Mountains Conservancy
	Conservation, Department of		San Joaquin River Conservancy
	Corrections, Department of		Santa Monica Mountains Conservancy
	Delta Protection Commission		State Lands Commission
	Education, Department of		SWRCB: Clean Water Grants
	Energy Commission		SWRCB: Water Quality
	Fish & Wildlife Region #		SWRCB: Water Rights
	Food & Agriculture, Department of		Tahoe Regional Planning Agency
	Forestry & Fire Protection, Department of		Toxic Substances Control, Department of
	General Services, Department of		Water Resources, Department of
	Health Services, Department of		Other:
	Housing & Community Development		Other:

Local Public Review Period (to be filled in by lead agency):

Starting Date: Ending Date:

Address where copies of the Draft EIR are available and a description of how the Draft EIR can be provided in an electronic format:

Lead Agency (Complete if applicable):

Consulting Firm:

Address:

City/State/Zip:

Contact:

Phone:

Applicant:	
Address:	
City/State/Zip:	
Phone:	

Signature of Lead Agency Representative:	_____	Date:

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

For SCH Use Only:

Date Received at SCH

Date Review Starts

Date to Agencies

Date to SCH

Clearance Date

Notes:

ENVIRONMENTAL INFORMATION FORM

(For private projects, this form must be completed by private project applicant to assist staff in completing Initial Study)

Date Filed:

GENERAL INFORMATION

1.	Developer or project sponsor	Name:
		Address:
2.	Project Location – Identify street address and cross streets or attach a map showing project site (preferably a USGS 15' or 7 1/2' topographical map identified by quadrangle name):	
3.	Assessor's Block and Lot Number	
4.	Person to be contacted regarding this project	Name:
		Address:
		Telephone:
5.	Permit Application Number for project	
6.	Existing Zoning District	
7.	Proposed use of site (project for which this form is filed)	

List and describe any other related permits and other public approvals required for this project, including those required by city, regional, state and federal agencies:

8.	Site size:	
9.	Square footage:	
10.	Number of floors of construction:	
11.	Amount of off-street parking provided:	
12.	Attach plans:	
13.	Proposed scheduling:	
14.	Associated projects:	
15.	Anticipated incremental development:	

16. If residential, include the number of units, schedule of unit sizes, range of sales prices or rents and type of household size expected.

17. If commercial, indicate the type, whether neighborhood, city or regionally oriented, square footage of sales area and loading facilities.

18. If industrial, indicate type, estimated employment per shift and loading facilities.

19. If institutional, indicate the major function, estimated employment per shift, estimated occupancy, loading facilities and community benefits to be derived from the project.

20. If the project involves a variance, conditional use or rezoning application, state this and indicate clearly why the application is required.

Are the following items applicable to the project or its effects?

Discuss below all items checked yes (attach additional sheets as necessary).

YES	NO		
☐	☐	21.	Change in existing features of any bays, tidelands, beaches, lakes, hills or substantial alteration of ground contours.
☐	☐	22.	Change in scenic views or vistas from existing residential areas or public lands or roads.
☐	☐	23.	Change in pattern, scale or character of general area of project.
☐	☐	24.	Significant amounts of solid waste or litter.
☐	☐	25.	Change in dust, ash, smoke, fumes or odors in vicinity.
☐	☐	26.	Change in ocean, bay, lake, stream or ground water quality or quantity, or alteration of existing drainage patterns.
☐	☐	27.	Substantial change in existing noise or vibration levels in the vicinity.
☐	☐	28.	Site on filled land or on slope of 10 percent or more.
☐	☐	29.	Use or disposal of potentially hazardous materials, such as toxic substances, flammables or explosives.
☐	☐	30.	Substantial change in demand for municipal services (police, fire, water, sewage, etc.).
☐	☐	31.	Substantial increase in fossil fuel consumption (electricity, oil, natural gas, etc.).
☐	☐	32.	Relationship to a larger project or series of projects.
☐	☐	33.	Has a prior environmental impact report been prepared for a program, plan, policy or ordinance consistent with this project?
☐	☐	34.	If you answered yes to question 33, may this project cause significant effects on the environment that were not examined in the prior EIR?

YES	NO		
☐	☐	35.	Will the project require the import or export of soil? If so, how much? From where will import come? To where will export go? What is the proposed haul route?

ENVIRONMENTAL SETTING

36. Describe the project site as it exists before the project, including information on topography, soil stability, plants and animals, and any cultural, historical or scenic aspects. Describe any existing structures on the site, and the use of the structures. Attach photographs of the site. (Snapshots or instant photos acceptable.)

37. Describe the surrounding properties, including information on plants and animals and any cultural, historical or scenic aspects. Indicate the type of land use (residential, commercial, etc.), intensity of land use (one-family, apartment houses, shops, department stores, etc.), and scale of development (height, frontage, set-back, rear yard, etc.). Attach photographs of the vicinity. (Snapshots or instant photos acceptable.)

CERTIFICATION: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date:

Signature:

For:

INITIAL STUDY

NOTE: The following is a sample form that may be tailored by the Lead Agency to satisfy project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in the State and Local CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

1. Project Title:

2. Lead Agency Name and Address:

3. Contact Person and Phone Number:

4. Project Location: .

5. Project Sponsor's Name and Address:

6. General Plan Designation:

7. Zoning:

8. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheet(s) if necessary.)

9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings.)

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture/Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance
☐ Tribal Cultural Resources	☐ Wildfire	☐ Energy

DETERMINATION (To be completed by the Lead Agency):

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a “potentially significant” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____

Signature Date

Printed Name For

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant.

"Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analyses Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

SAMPLE QUESTION

Issues:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in public resources code section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?)	☐	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☐

II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. in determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☐

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☐
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☐
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☐
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:	☐	☐	☐	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☐
ii) Strong seismic ground shaking?	☐	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☐
iv) Landslides?	☐	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☐
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☐	☐
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐ ☐ ☐ ☐			
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☐
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☐
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☐
iv) impede or redirect flood flows?	☐	☐	☐	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☐
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☐
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☐
XIII. NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐
XV. PUBLIC SERVICES. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☐
Fire protection?	☐	☐	☐	☐
Police protection?	☐	☐	☐	☐
Schools?	☐	☐	☐	☐
Parks?	☐	☐	☐	☐
Other public facilities?	☐	☐	☐	☐
XVI. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	☐	☐	☐	☐
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☐
d) Result in inadequate emergency access?	☐	☐	☐	☐
XVIII. TRIBAL CULTURAL RESOURCES				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☐	☐	☐
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☐
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☐

XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☐

XXI. MANDATORY FINDINGS OF SIGNIFICANCE. (State CEQA Guidelines section 15065(a).)

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☐
b)	Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☐	☐
c)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)	☐	☐	☐	☐
d)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐

Note: Authority cited: Public Resources Code sections 21083, 21083.05, 21083.09.

Reference: Gov. Code section 65088.4; Public Resources Code sections 21073, 21074, 21080(c), 21080.1, 21080.3, 21080.3.1, 21080.3.2, 21082.3, 21083, 21083.3, 21083.5, 21084.2, 21084.3, 21093, 21094, 21095 and 21151; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey County Board of Supervisors* (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

SUPPLEMENTAL ENVIRONMENTAL CHECKLIST FORM

FOR USE WHEN REVIEWING SUBSEQUENT DISCRETIONARY ACTIONS PURSUANT TO A PREVIOUSLY APPROVED OR CERTIFIED ENVIRONMENTAL DOCUMENT

1. Project Title:

2. Lead Agency Name and Address:

3. Contact Person and Phone Number:

4. Project Location:

5. Project Sponsor's Name and Address:

6. General Plan Designation:

7. Zoning:

8. Previous Environmental Document: Please describe the previously adopted ND or MND or the previously certified EIR (include the date the document was adopted or certified, the date the project was approved, the date the NOD was filed with the County, and a summary of potentially significant effects identified in the CEQA document).

9. Description of Project: (Describe the previously approved project and the authorized entitlements/ discretionary actions. Describe whether the subsequent discretionary action now proposed was considered in the previously approved CEQA document and describe any differences between the proposed action and the approved project.)

10. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings.)

11. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

12. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

NEW SIGNIFICANT ENVIRONMENTAL EFFECTS OR SUBSTANTIALLY MORE SEVERE SIGNIFICANT ENVIRONMENTAL EFFECTS COMPARED TO THOSE IDENTIFIED IN THE PREVIOUS CEQA DOCUMENT. The subject areas checked below were determined to be new significant environmental effects or to be previously identified effects that have a substantial increase in severity either due to a change in project, change in circumstances or new information of substantial importance, as indicated by the checklist and discussion on the following pages.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality	☐ Land Use / Planning
☐ Mineral Resources	☐ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	☐ Transportation
☐ Utilities / Service Systems	☐ Mandatory Findings of Significance	☐ Greenhouse Gases
☐ Energy	☐ Wildfire	☐ Tribal Cultural Resources

DETERMINATION (To be completed by the Lead Agency):

On the basis of this initial evaluation:

☐ No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous approved ND or MND or certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted ND or MND or previously certified EIR adequately discusses the potential impacts of the project without modification.

☐ No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous approved ND or MND or certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted ND, MND or previously certified EIR adequately discusses the potential impacts of the project; however, minor changes require the preparation of an ADDENDUM.

☐ Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous ND, MND or EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However, all new potentially significant environmental effects or substantial increases in the severity of previously identified significant effects are clearly reduced to below a level of significance through the incorporation of mitigation measures agreed to by the project applicant. Therefore, a SUBSEQUENT MND is required.

☐ Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous environmental document due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However, only minor changes or additions or changes would be necessary to make the previous EIR adequate for the project in the changed situation. Therefore, a SUPPLEMENTAL EIR is required.

☐ Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous environmental document due to the involvement of significant new environmental effects or a substantial increase in the severity of previously

identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, a SUBSEQUENT EIR is required.

Signature Date

Printed Name For

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A finding of "No New Impact/No Impact" means that the potential impact was fully analyzed and/or mitigated in the prior CEQA document and no new or different impacts will result from the proposed activity. A brief explanation is required for all answers except "No New Impact/No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No New Impact/No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No New Impact/No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. A finding of "New Mitigation is Required" means that the project may have a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document and that new mitigation is required to address the impact.

3. A finding of "New Potentially Significant Impact" means that the project may have a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document that cannot be mitigated to below a level of significance or be avoided.

4. A finding of "Reduced Impact" means that a previously infeasible mitigation measure is now available, or a previously infeasible alternative is now available that will reduce a significant impact identified in the previously prepared environmental document.

5. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

6. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a. Earlier Analyses Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis. Describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the proposed action.

    c. Infeasible Mitigation Measures. Since the previous EIR was certified or previous ND or MND was adopted, discuss any mitigation measures or alternatives previously found not to be feasible that would in fact be feasible or that are considerably different from those previously analyzed and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives.

    d. Changes in Circumstances. Since the previous EIR was certified or previous ND or MND was adopted, discuss any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause a change in conclusion regarding one or more effects discussed in the original document.

7. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

8. Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

9. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

10. The explanation of each issue should identify:

    a. the significance criteria or threshold, if any, used to evaluate each question;

    b. differences between the proposed activity and the previously approved project described in the approved ND or MND or certified EIR; and

    c. the previously approved mitigation measure identified, if any, to reduce the impact to less than significance.

SAMPLE QUESTION

		New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
I. AESTHETICS. Except as provided in Public Resources Code section 21099, would the project:					
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☐
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?)	☐	☐	☐	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☐

II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board. -- Would the project:

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☐

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☐

IV. BIOLOGICAL RESOURCES. Would the project:

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☐

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☐
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:	☐	☐	☐	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☐
ii) Strong seismic ground shaking?	☐	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☐
iv) Landslides?	☐	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☐

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☐
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☐	☐
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☐
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☐
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☐
iv) impede or redirect flood flows?	☐	☐	☐	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☐
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☐

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☐
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☐
XIII. NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	☐	☐	☐	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
XV. PUBLIC SERVICES. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☐
Fire protection?	☐	☐	☐	☐
Police protection?	☐	☐	☐	☐
Schools?	☐	☐	☐	☐
Parks?	☐	☐	☐	☐
Other public facilities?	☐	☐	☐	☐
XVI. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	☐	☐	☐	☐
XVII. TRANSPORTATION. Would the project:				
a) Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☐
d) Result in inadequate emergency access?	☐	☐	☐	☐

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
XVIII. TRIBAL CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☐	☐	☐
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☐
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☐

X. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☒	☐	☐	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☐

XI. MANDATORY FINDINGS OF SIGNIFICANCE. (State CEQA Guidelines section 15065(a).)

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☐
b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☐	☐

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)	☐	☐	☐	☐
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐

NOTICE OF AVAILABILITY OF DRAFT ENVIRONMENTAL IMPACT REPORT

To:	
From:	
Lead Agencies:	
Contacts (name, address, telephone, email address):	
Project Title:	
Project Location – Specific; Identify street address and cross streets or attach a map showing project site (preferably a USGS 15' or 7 1/2' topographical map identified by quadrangle name):	
Project Location – City:	
Project Location – County:	
Description of Nature, Purpose, and Beneficiaries of Project:	
Significant environmental effects:	
Place and time of scheduled meetings:	
Date when project noticed to public:	
Address where copy of the EIR is available and how it can be obtained in an electronic format:	
Review Period:	to
Comments on the Draft EIR may be submitted via e-mail to xxxxxxx, or via U.S. mail to xxxxx, at the above mailing address by ____ __.m. on _____, 2023. In addition, comments may be provided at the public hearing noticed above.	

California Department of Fish and Wildlife - Inland Desert Region 6

No Effect Determination Request Form

To: DEPARTMENT OF FISH AND WILDLIFE

Inland Desert Regional Office
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
Information:(909) 484-0167
FAX: (909) 941-7364
Email: AskRegion6@wildlife.ca.gov

http://www.wildlife.ca.gov
Environmental Review and Permitting
1416 Ninth Street
Sacramento, California 95814
Information: (916) 653-4875

Date Submitted:	
CEQA Lead Agency:	
Lead Agency Contact Phone Number:	
Lead Agency Address:	
SCH Number or County Filing Number and local agency project/case number:	
CEQA Document Type (the type of document prepared for your project by the CEQA Lead Agency):	
Applicant Name and Contact Phone Number (if applicable):	
Applicant Address (if applicable):	
Project Title:	
Project Location (include the street address, lat/long, range/township/section, or other description that clearly indicates the location of the project site. Include an aerial or topographic map of the project site):	
Project Description (include details such as new construction [with square footage], demolition of existing buildings, adaptive reuse of existing buildings, zoning amendments, general plan amendments, conditional use for sale of alcoholic beverages, etc.) Use additional sheets if necessary:	
Justification for No Effect Determination (explain how the proposed project is consistent with Title 14 Section 753.5(d) CCR):	

Facts Supporting Fee Exemption:

1. An Initial Study has been prepared by the Lead Agency to evaluate the project's effects on fish and wildlife resources, if any.

2. The Lead Agency hereby finds that there is substantial evidence that the project will have no effect on fish or wildlife.

3. The project will have NO EFFECT on the following resources:

   (A) Riparian land, rivers, streams, watercourses and wetlands;

   (B) Native and non-native plant life and the soil required to sustain habitat for fish and wildlife;

   (C) Rare and unique plant life and ecological communities dependent on plant life;

   (D) Listed threatened and endangered plants and animals and the habitat in which they are believed to reside;

   (E) All species listed as protected or identified for special management in the Fish and Game Code, the Public Resources Code, the Water Code or regulations adopted thereunder;

   (F) All marine and terrestrial species subject to the jurisdiction of the Department of Fish and Game and the ecological communities in which they reside; and

   (G) All air and water resources, the degradation of which will individually or cumulatively result in a loss of biological diversity among the plants and animals residing in that air and water.

DECLARATION:

Based on the Lead Agency's evaluation of potential adverse effects on fish and wildlife resources, the Lead Agency believes the project will have no effect on fish or wildlife resources, as defined in Section 711.2 of the Fish and Game Code.

_____
Signature - Lead Agency Representative

Title:

Lead Agency:

Date:

NOTICE OF RECIRCULATION

To whom it may concern: You are receiving this notice because you commented on the Draft EIR for the following Project:	
Project Name:	
Project Description:	
Project Location – Identify street address and cross streets or attach a map showing project site (preferably a USGS 15' or 7 1/2' topographical map identified by quadrangle name):	
The Draft EIR prepared for this project has been revised.	
☐ The entire Draft EIR is being recirculated. Your prior comments remain part of the administrative record, but they are no longer applicable to the Draft EIR that is under consideration. The Final EIR will not provide a response to your prior comments. Should you wish to comment on the revised Draft EIR, you will need to submit new comments.	
☐ Only the following chapters or portions of the Draft EIR have been revised, and only those parts of the revised Draft EIR are being recirculated:	
☐ Your comments should be limited to those parts of the revised Draft EIR that are being recirculated.	
☐ Your comments need not be limited to those parts of the revised Draft EIR that are being recirculated.	
Review Period on Recirculated Draft EIR: From to	
All comments on the Recirculated Draft EIR should be addressed to the following individual and must be received no later than [FILL-IN END DATE]. Should you have any questions about this notice, please contact:	
Staff:	
Title:	
Telephone Number:	
E-Mail:	

Date Received for Filing: Staff

(Clerk Stamp Here)

THIS IS A SAMPLE FORM AND SHOULD BE MODIFIED TO MEET THE NEEDS OF THE PARTICULAR PROJECT/CIRCUMSTANCE

General Manager

Re: Water Supply Assessment for Project within the _____

Dear _____,

We have received an application from [project proponent] for the following project ("Project"):

We have consulted with each other and have mutually agreed that your [District/Agency/Company] is a public water system that may provide water service to the Project. We have also mutually agreed that the Project is subject to the water supply assessment requirements of Water Code sections 10910 - 10912. Pursuant to Water Code section 10910, [Agency name] requests to submit a water supply assessment for the Project on or before _____, which is within 90 days of the date of this request. We concurrently request the [District/Agency/Company] to state whether the projected water demand associated with the Project was included as part of the most recently adopted Urban Water Management Plan. Please contact me to confirm receipt of this request.

Thank you for your cooperation in this matter. If you have any questions about this request, please contact me at your earliest convenience.

THIS IS A SAMPLE FORM AND SHOULD BE MODIFIED AS NECESSARY TO MEET THE NEEDS OF THE PARTICULAR PROJECT/CIRCUMSTANCE

General Manager

Re: Water Supply Verification for Project within the of _____

Dear _____,

_____ has submitted to the [public agency] an application for tentative map (No.) for the following subdivision ("Subdivision"):

_____ staff has determined that the application is complete. Pursuant to Government Code section 66455.3, we are enclosing a copy of the application.]

[We have consulted with each other and have mutually agreed that your is a public water system that may provide water service to the Subdivision. We have also mutually agreed that the Subdivision is subject to the water supply verification requirements of the Subdivision Map Act.] Pursuant to Government Code section 66473.7(b)(1), requests your _____ to submit a water supply verification for the Subdivision on or before , which is within 90 days of the date of this request. Please contact me to confirm receipt of this request.

Thank you for your cooperation in this matter. If you have any questions about this request, please contact me at your earliest convenience.

SHORTENED REVIEW REQUEST FORM

(To be filled out and signed by the **Lead Agency** and submitted with the DEIR or Negative Declaration to SCH)

TO:	State Clearinghouse P.O. Box 3044 Sacramento, CA 95812-3044	FROM:	Lead Agency: Address: Phone No.: Contact:

State Clearinghouse Number:
Project Title:
Specific Project Location – Identify street address and cross street or attach a map showing project site (preferably a USGS 15' or 7 ½' topographical map identified by quadrangle name):
General Project Location (City and/or County):
Type of Environmental Document: ☐ Environmental Impact Report (EIR). The Lead Agency issued a Notice of Preparation on _____ and received comments from applicable State agencies. ☐ Negative Declaration (ND) or Mitigated Negative Declaration (MND). The Lead Agency consulted with applicable State agencies on .
Brief Project Description:

Explain "exceptional circumstances" (State CEQA Guidelines Section 15205(d)) for requesting a shortened review. Identify which of the following five (5) criteria in State CEQA Guidelines Appendix K are met for this project.

1. ☐	The Lead Agency is operating under an extension of the one-year period for completion of an EIR and would not otherwise be able to complete the EIR within the extended period.
2. ☐	The public project applicant is under severe time constraints with regard to obtaining financing or exercising options which cannot be met without shortening the review period.
3. ☐	The document is a supplement to a draft EIR or proposed negative declaration or mitigated negative declaration previously submitted to the State Clearinghouse.
4. ☐	The health and safety of the community would be at risk unless the project is approved expeditiously.
5. ☐	The document is a revised draft EIR, or proposed negative declaration or mitigated negative declaration, where changes in the document are primarily the result of comments from agencies and the public.

	Explain how the above criteria applies to the project.

In compliance with the State and Local CEQA Guidelines, the Lead Agency has contacted and obtained prior approval for a shortened review from the applicable State responsible and trustee agencies. List responsible and trustee state agencies with contact person, phone number and date of consent for the shortened review, as well as any agencies that have commented on the project (attach additional pages, if necessary):

As designated representative for the Lead Agency, I verify, in the Lead Agency's behalf, that there is no "statewide, regional, or areawide significance" to this project.

Length of review being requested: days

Date:

_____
Signature of Designated Lead Agency Representative

Print Name:

Title:

Date Received for Filing:

SUMMARY FORM FOR ELECTRONIC DOCUMENT SUBMITTAL

Lead agencies must submit Environmental Impact Reports, Negative Declarations, Mitigated Negative Declarations, or Notices of Preparation to the State Clearinghouse (SCH) through the CEQA Submit portal. The SCH also accepts other summaries, such as EIR Executive Summaries prepared pursuant to CEQA Guidelines Section 15123 electronically only. Please include the Notice of Completion Form (NOC) with your submission and attach the summary to each electronic copy of the document.

State Clearinghouse Number:

Project Title:

Lead Agency:

Contact Name:

Email: Phone Number:

Project Location (City and County):

Provide a Project Description (Proposed actions, location, and/or consequences).
Identify the project's significant or potentially significant effects and briefly describe any proposed mitigation measures that would reduce or avoid that effect.
If applicable, describe any of the project's areas of controversy known to the Lead Agency, including issues raised by agencies and the public.
Provide a list of the responsible or trustee agencies for the project.

Form R: Performance Standards for Infill Projects Eligible for Streamlined Review

I. Introduction

Section 15183.3 provides a streamlined review process for infill projects that satisfy specified performance standards. This appendix contains those performance standards. The lead agency's determination that the project satisfies the performance standards shall be supported with substantial evidence, which should be documented on the Infill Checklist in Appendix S. Section II defines terms used in this Appendix. Performance standards that apply to all project types are set forth in Section III. Section IV contains performance standards that apply to particular project types (i.e., residential, commercial/retail, office building, transit stations, and schools).

II. Definitions

The following definitions apply to the terms used in this Appendix.

"High-quality transit corridor" means an existing corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. For the purposes of this Appendix, an "existing stop along a high-quality transit corridor" may include a planned and funded stop that is included in an adopted regional transportation improvement program.

Unless more specifically defined by an air district, city or county, "high-volume roadway" means freeways, highways, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.

"Low vehicle travel area" means a traffic analysis zone that exhibits a below average existing level of travel as determined using a regional travel demand model. For residential projects, travel refers to either home-based or household vehicle miles traveled per capita. For commercial and retail projects, travel refers to non-work attraction trip length; however, where such data are not available, commercial projects reference either home-based or household vehicle miles traveled per capita. For office projects, travel refers to commute attraction vehicle miles traveled per employee; however, where such data are not available, office projects reference either home-based or household vehicle miles traveled per capita.

"Major Transit Stop" means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with frequencies of service intervals of 15 minutes or less during the morning and afternoon peak commute periods. For the purposes of this Appendix, an "existing major transit stop" may include a planned and funded stop that is included in an adopted regional transportation improvement program.

"Office building" generally refers to centers for governmental or professional services; however, the lead agency shall have discretion in determining whether a project is "commercial" or "office building" for the purposes of this Appendix based on local zoning codes.

"Significant sources of air pollution" include airports, marine ports, rail yards and distribution centers that receive more than 100 heavy-duty truck visits per day, as well as stationary sources that are designated major by the Clean Air Act.

A “Traffic Analysis Zone” is an analytical unit used by a travel demand model to estimate vehicle travel within a region.

III. Performance Standards Related to Project Design

To be eligible for streamlining pursuant to Section 15183.3, a project must implement all of the following:

Renewable Energy. All non-residential projects shall include on-site renewable power generation, such as solar photovoltaic, solar thermal and wind power generation, or clean back-up power supplies, where feasible. Residential projects are also encouraged to include such on-site renewable power generation.

Soil and Water Remediation. If the project site is included on any list compiled pursuant to Section 65962.5 of the Government Code, the project shall document how it has remediated the site, if remediation is completed. Alternatively, the project shall implement the recommendations provided in a preliminary endangerment assessment or comparable document that identifies remediation appropriate for the site.

Residential Units Near High-Volume Roadways and Stationary Sources. If a project includes residential units located within 500 feet, or other distance determined to be appropriate by the local agency or air district based on local conditions, of a high volume roadway or other significant sources of air pollution, the project shall comply with any policies and standards identified in the local general plan, specific plan, zoning code or community risk reduction plan for the protection of public health from such sources of air pollution. If the local government has not adopted such plans or policies, the project shall include measures, such as enhanced air filtration and project design, that the lead agency finds, based on substantial evidence, will promote the protection of public health from sources of air pollution. Those measures may include, among others, the recommendations of the California Air Resources Board, air districts, and the California Air Pollution Control Officers Association.

IV. Additional Performance Standards by Project Type

In addition to the project features described above in Section III, specific eligibility requirements are provided below by project type.

Several of the performance standards below refer to “low vehicle travel areas.” Such areas can be illustrated on maps based on data developed by the regional Metropolitan Planning Organization (MPO) using its regional travel demand model.

Several of the performance standards below refer to distance to transit. Distance should be calculated so that at least 75 percent of the surface area of the project site is within the specified distance.

A. Residential

To be eligible for streamlining pursuant to Section 15183.3, a project must satisfy one of the following:

Projects achieving below average regional per capita vehicle miles traveled (VMT). A residential project is eligible if it is located in a "low vehicle travel area" within the region.

Projects located within 1/2% mile of an Existing Major Transit Stop or High Quality Transit Corridor. A residential project is eligible if it is located within 1/2 mile of an existing major transit stop or an existing stop along a high quality transit corridor.

Low-Income Housing. A residential or mixed-use project consisting of 300 or fewer residential units all of which are affordable to low income households is eligible if the developer of the development project provides sufficient legal commitments to the lead agency to ensure the continued availability and use of the housing units for lower income households, as defined in Section 50079.5 of the Health and Safety Code, for a period of at least 30 years, at monthly housing costs, as determined pursuant to Section 50053 of the Health and Safety Code.

B. Commercial/Retail

To be eligible for streamlining pursuant to Section 15183.3, a project must satisfy one of the following:

Regional Location. A commercial project with no single-building floor-plate greater than 50,000 square feet is eligible if it locates in a "low vehicle travel area."

Proximity to Households. A project with no single-building floor-plate greater than 50,000 square feet located within one-half mile of 1800 households is eligible.

C. Office Building

To be eligible for streamlining pursuant to Section 15183.3, a project must satisfy one of the following:

Regional Location. Office buildings, both commercial and public, are eligible if they locate in a low vehicle travel area.

Proximity to a Major Transit Stop. Office buildings, both commercial and public, within 1/2 mile of an existing major transit stop, or 1/4 mile of an existing stop along a high quality transit corridor, are eligible.

D. Transit

Transit stations, as defined in Section 15183.3(e)(1), are eligible.

E. Schools

Elementary schools within one mile of fifty percent of the projected student population are eligible. Middle schools and high schools within two miles of fifty percent of the projected student population are eligible. Alternatively, any school within 1/2% mile of an existing major transit stop or an existing stop along a high quality transit corridor is eligible.

Additionally, in order to be eligible, all schools shall provide parking and storage for bicycles and scooters and shall comply with the requirements in Sections 17213, 17213.1 and 17213.2 of the California Education Code.

F. Small Walkable Community Projects

Small walkable community projects, as defined in Section 15183.3, subdivision (e)(6), that implement the project features described in Section III above are eligible.

G. Mixed-Use Projects

Where a project includes some combination of residential, commercial and retail, office building, transit station, and/or schools, the performance standards in this Section that apply to the predominant use shall govern the entire project.

Authority: Public Resources Code Sections 21083, 21094.5.5

Reference: Public Resources Code Sections 21094.5 and 21094.5.5

INFILL ENVIRONMENTAL CHECKLIST FORM

NOTE: This sample form is intended to assist lead agencies in assessing infill projects according to the procedures provided in Section 21094.5 of the Public Resources Code. Lead agencies may customize this form as appropriate, provided that the contents satisfies the requirements in Section 15183.3 of the State CEQA Guidelines.

1. Project Title:

2. Lead Agency Name and Address:

3. Contact Person and Phone Number:

4. Project Location: Click to enter text.

5. Project Sponsor's Name and Address:

6. General Plan Designation:

7. Zoning:

8. Prior Environmental Document(s) Analyzing the Effects of the Infill Project:

9. Location of Prior Environmental Document(s) Analyzing the Effects of the Infill Project (including State Clearinghouse Number, if assigned):

10. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheet(s) if necessary.)

11. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings, including any prior uses of the project site, or, if vacant, describe the urban uses that exist on at least 75% of the project's perimeter.)

12. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

13. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality

SATISFACTION OF FORM R PERFORMANCE STANDARDS

Provide the information demonstrating that the infill project satisfies the performance standards in Form R below. For **mixed-use projects**, the predominant use will determine which performance standards apply to the entire project.

1. Does the non-residential infill project include a renewable energy feature? If so, describe below. If not, explain below why it is not feasible to do so.

2. If the project site is included on any list compiled pursuant to Section 65962.5 of the Government Code, either provide documentation of remediation or describe the recommendations provided in a preliminary endangerment assessment or comparable document that will be implemented as part of the project.

3. If the infill project includes residential units located within 500 feet, or such distance that the local agency or local air district has determined is appropriate based on local conditions, a high volume roadway or other significant source of air pollution, as defined in Form R, describe the measures that the project will implement to protect public health. Such measures may include policies and standards identified in the local general plan, specific plans, zoning code or community risk reduction plan, or measures recommended in a health risk assessment, to promote the protection of public health. Identify the policies or standards, or refer to the site specific analysis, below. (Attach additional sheets if necessary.)

4. For **residential** projects, the project satisfies which of the following?

☐ Located within a low vehicle travel area, as defined in Form S. (Attach VMT map.)

☐ Located within 1/2 mile of an existing major transit stop or an existing stop along a high quality transit corridor. (Attach map illustrating proximity to transit.)

☐ Consists of 300 or fewer units that are each affordable to low income households. (Attach evidence of legal commitment to ensure the continued availability and use of the housing units for lower income households, as defined in Section 50079.5 of the Health and Safety Code, for a period of at least 30 years, at monthly housing costs, as determined pursuant to Section 50053 of the Health and Safety Code.)

5. For **commercial** projects with a single building floor-plate below 50,000 square feet, the project satisfies which of the following?

☐ Located within a low vehicle travel area, as defined in Form R. (Attach VMT map.)

☐ The project is within one-half mile of 1800 dwelling units. (Attach map illustrating proximity to households.)

6. For **office building** projects, the project satisfies which of the following?

☐ Located within a low vehicle travel area, as defined in Form R. (Attach VMT map.)

☐ Located within 1/2 mile of an existing major transit stop or within 1/4 of a stop along a high quality transit corridor. (Attach map illustrating proximity to transit.)

7. For **school** projects, the project does all of the following:

☐ The project complies with the requirements of Sections 17213, 17213.1 and 17213.2 of the California Education Code.

☐ The project is an elementary school and is within one mile of 50% of the student population, or is a middle school or high school and is within two miles of 50% of the student population. Alternatively, the school is within 1/2 mile of an existing major transit stop or an existing stop along a high quality transit corridor. (Attach map and methodology.)

☐ The project provides parking and storage for bicycles and scooters.

8. For **small walkable community projects**, the project must be a residential project that has a density of at least eight units to the acre or a commercial project with a floor area ratio of at least 0.5, or both.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The infill project could potentially result in one or more of the following environmental effects.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance
☐ Energy	☐ Wildfire	

DETERMINATION (To be completed by the Lead Agency):

On the basis of this initial evaluation:

☐ I find that the proposed infill project WOULD NOT have any significant effect on the environment that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed, or that uniformly applicable development policies would not substantially mitigate. Pursuant to Public Resources Code Section 21094.5, CEQA does not apply to such effects. A Notice of Determination will be filed. (State CEQA Guidelines, § 15094.)

☐ I find that the proposed infill project will have effects that either have not been analyzed in a prior EIR, or are more significant than described in the prior EIR, and that no uniformly applicable development policies would substantially mitigate such effects. With respect to those effects that are subject to CEQA, I find that such effects WOULD NOT be significant and a NEGATIVE DECLARATION, or if the project is a Transit Priority Project a SUSTAINABLE COMMUNITIES ENVIRONMENTAL ASSESSMENT, will be prepared.

☐ I find that the proposed infill project will have effects that either have not been analyzed in a prior EIR, or are more significant than described in the prior EIR, and that no uniformly applicable development policies would substantially mitigate such effects. I find that although those effects could be significant, there will not be a significant effect in this case because revisions in the infill project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION, or if the project is a Transit Priority Project a SUSTAINABLE COMMUNITIES ENVIRONMENTAL ASSESSMENT, will be prepared.

☐ I find that the proposed infill project would have effects that either have not been analyzed in a prior EIR, or are more significant than described in the prior EIR, and that no uniformly applicable development policies would substantially mitigate such effects. I find that those effects WOULD be significant, and an infill ENVIRONMENTAL IMPACT REPORT is required to analyze those effects that are subject to CEQA.

Signature Date

Printed Name For

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. For the purposes of this checklist, "prior EIR" means the environmental impact report certified for a planning level decision, as supplemented by any subsequent or supplemental environmental impact reports, negative declarations, or addenda to those documents. "Planning level decision" means the enactment or amendment of a general plan, community plan, specific plan, or zoning code. (State CEQA Guidelines, § 15183.3(f)(2).)

4. Once the Lead Agency has determined that a particular physical impact may occur as a result of an infill project, then the checklist answers must indicate whether the impact has already been analyzed in a prior EIR. If the effect of the infill project is not more significant than what has already been analyzed, that effect of the infill project is not subject to CEQA. The brief explanation accompanying this determination should include page and section references to the portions of the prior EIR containing this analysis of that effect. The brief explanation shall also indicate whether the prior EIR included any mitigation measures to substantially lessen that effect and whether those measures have been incorporated into the infill project.

5. If the infill project would cause a significant adverse effect that either is specific to the project or project site and was not analyzed in a prior EIR, or is more significant than what was analyzed in a prior EIR, the Lead Agency must determine whether uniformly applicable development policies or standards that have been adopted by the Lead Agency, or city or county, would substantially mitigate that effect. If so, the checklist shall explain how the infill project's implementation of the uniformly applicable development policies will substantially mitigate that effect. That effect of the infill project is not subject to CEQA if the lead agency makes a finding, based upon substantial evidence, that the development policies or standards will substantially mitigate that effect.

6. If all effects of an infill project were either analyzed in a prior EIR or are substantially mitigated by uniformly applicable development policies or standards, CEQA does not apply to the project, and the Lead Agency shall file a Notice of Determination.

7. Effects of an infill project that either have not been analyzed in a prior EIR, or that uniformly applicable development policies or standards do not substantially mitigate, are subject to CEQA. With respect to those effects of the infill project that are subject to CEQA, the checklist shall indicate whether those effects are significant, less than significant with mitigation, or less than significant. If there are one or more "Significant Impact" entries when the determination is made, an infill EIR is required. The infill EIR should be limited to analysis of those effects determined to be significant. (State CEQA Guidelines, § 15183.3(d).)

8. "Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures will reduce an effect of an infill project that is subject to CEQA from "Significant Impact" to a "Less Than Significant

Impact." The Lead Agency must describe the mitigation measures, and briefly explain how those measures reduce the effect to a less than significant level. If the effects of an infill project that are subject to CEQA are less than significant with mitigation incorporated, the Lead Agency may prepare a Mitigated Negative Declaration. If all of the effects of the infill project that are subject to CEQA are less than significant, the lead agency may prepare a Negative Declaration.

9. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to an infill project's environmental effects in whatever format is selected.

10. The explanation of each issue should identify:

    a. the significance criteria or threshold, if any, used to evaluate each question; and

    b. the mitigation measure identified, if any, to reduce the impact to less than significance.

Issues:

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
I. AESTHETICS. Except as provided in Public Resources Code section 21099, would the project:						
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☐	☐	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?)	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☐	☐	☐
II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board. -- Would the project:						
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	☐	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☐	☐	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐	☐	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☐	☐	☐
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	☐	☐	☐	☐	☐	☐
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☐	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☐	☐	☐
IV. BIOLOGICAL RESOURCES. Would the project:						
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☐	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐	☐	☐
V. CULTURAL RESOURCES. Would the project:						
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☐	☐	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☐	☐	☐
VI. ENERGY. Would the project:						
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☐	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☐	☐	☐
VII. GEOLOGY AND SOILS. Would the project:						
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☐	☐	☐
ii) Strong seismic ground shaking?	☐	☐	☐	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☐	☐	☐
iv) Landslides?	☐	☐	☐	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☐	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☐	☐	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☐	☐	☐
VIII. GREENHOUSE GAS EMISSIONS. Would the project:						
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☐	☐	☐	☐
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:						
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☐	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☐	☐	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐	☐	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
X. HYDROLOGY AND WATER QUALITY. Would the project:						
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☐	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☐	☐	☐
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☐	☐	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☐	☐	☐
iv) impede or redirect flood flows?	☐	☐	☐	☐	☐	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☐	☐	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☐	☐	☐
XI. LAND USE AND PLANNING. Would the project:						
a) Physically divide an established community?	☐	☐	☐	☐	☐	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☐	☐	☐
XII. MINERAL RESOURCES. Would the project:						
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☐	☐	☐
XIII. NOISE. Would the project result in:						
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☐	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☐	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
XIV. POPULATION AND HOUSING. Would the project:						
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	☐	☐	☐	☐	☐	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐	☐	☐
XV. PUBLIC SERVICES. Would the project:						
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☐	☐	☐
Fire protection?	☐	☐	☐	☐	☐	☐
Police protection?	☐	☐	☐	☐	☐	☐
Schools?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Parks?	☐	☐	☐	☐	☐	☐
Other public facilities?	☐	☐	☐	☐	☐	☐
XVI. RECREATION.						
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☐	☐	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	☐	☐	☐	☐	☐	☐
XVII. TRANSPORTATION. Would the project:						
a) Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☐	☐	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☐	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☐	☐	☐

		Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
d)	Result in inadequate emergency access?	☐	☐	☐	☐	☐	☐
XVIII.	**TRIBAL CULTURAL RESOURCES.** Would the project:						
a)	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☐	☐	☐	☐	☐
i)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☐	☐	☐
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:						
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☐	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐	☐	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☐	☐	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☐	☐	☐
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:						
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☐	☐	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☐	☐	☐
XXI. MANDATORY FINDINGS OF SIGNIFICANCE. (State CEQA Guidelines section 15065(a).)						
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☐	☐	☐

	Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☐	☐	☐	☐
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)	☐	☐	☐	☐	☐	☐
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐	☐	☐

Authority: Public Resources Code Sections 21083, 21094.5.5
Reference: Public Resources Code Sections 21094.5 and 21094.5.5

13. COMMON ACRONYMS

A. **********

ADEIR – Administrative Draft Environmental Impact Report
AQMD – Air Quality Management District
AQMP – Air Quality Management Plan
AR – Administrative Record
ARB – Air Resources Board

B. **********

BMP – Best Management Practices
BO – Biological Opinion

C. **********

Cal EPA – California Environmental Protection Agency
CAP – Climate Action Plan
CCAA – California Clean Air Act
CCR – California Code of Regulations (Title 14 Sections 15000 et seq. are also known as the State CEQA Guidelines.)
CE – Categorical Exclusion (NEPA)
CESA – California Endangered Species Act
CEQA – California Environmental Quality Act
CFR – Code of Federal Regulations
CMP – Congestion Management Plan
CRWQCB – California Regional Water Quality Control Board

D. **********

DEIR – Draft Environmental Impact Report
DFW – Department of Fish and Wildlife

E. **********

EA – Environmental Assessment (NEPA term)
EIR – Environmental Impact Report
EIS – Environmental Impact Statement (NEPA term)
EPA – Environmental Protection Agency
ESA – Endangered Species Act; Environmental Site Assessment

F. **********

FCAA – Federal Clean Air Act
FEIR – Final Environmental Impact Report
FOIA – Freedom of Information Act (Federal)
FONSI – Finding of No Significant Impact (NEPA term)
FWS – Fish and Wildlife Service

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G. **********

GHG – Greenhouse Gas
GW – Ground Water

H. **********

HH&E – Human Health and Environment
HRA – Health Risk Assessment
HS – Hazardous Substance

I. **********

IS – Initial Study

J. **********

K. **********

L. **********

LADD – Lifetime Average Daily Dose; Lowest Acceptable Daily Dose
LCI – Office of Land Use and Climate Innovation (formerly Office of Planning and Research or OPR)
LEA – Local Enforcement Agency
LESA – Land Evaluation and Site Assessment
LUFT – Leaking Underground Fuel Tank
LUST – Leaking Underground Storage Tanks. Reference Part 213 of Public Act 451 of 1994.

M. **********

MEIR – Master Environmental Impact Report
MMRP – Mitigation Monitoring and Reporting Plan
MPO – Metropolitan Planning Organization
MND – Mitigated Negative Declaration

N. **********

ND – Negative Declaration
NEPA – National Environmental Policy Act
NOA – Notice of Availability
NOC – Notice of Completion
NOD – Notice of Determination
NOE – Notice of Exemption
NOI – Notice of Intent
NOP – Notice of Preparation
NOV – Notice of Violation

O. **********

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P. **********

PEIR – Program Environmental Impact Report. Sometimes also used to describe a Project Environmental Impact Report
PM – Particulate Matter
PRA – Public Records Act
PSA – Permit Streamlining Act

Q. **********

R. **********

RCRA – Resource Conservation and Recovery Act (1976) Governs definition, handling, and disposal of hazardous waste.

S. **********

SCH – State Clearinghouse
SEIR – Supplemental or Subsequent Environmental Impact Report
SMARA – Surface Mining and Reclamation Act
SWMP – Stormwater Monitoring Program
SWPPP – Stormwater Pollution Prevention Program

T. **********

TCM – Transportation Control Measure
TCP – Transportation Control Plan
TDS – Total Dissolved Solids
TMP – Transportation Management Plan
Title V – refers to Title V of the Clean Air Act related to ambient air quality provisions
TLV – Threshold Limit Value

U. **********

UBC – Uniform Building Code
UFC – Uniform Fire Code
UGST – Underground Storage Tank
USDW – Underground Source of Drinking Water
UWMP – Urban Water Management Plan

V. **********

VOC – Volatile Organic Compounds (Health & Safety Code, section 25123.6.)
VOS – Vehicle Operating Survey

W. **********

WQS – Water Quality Standard
WSA – Water Supply Assessment

WTP – Water Treatment Plant. A facility designed to provide treatment to water.
WWTP – Wastewater Treatment Plan

X. **********

Y. **********

Z. **********

RESOLUTION NO. 2026-5-Draft

RESOLUTION OF THE BOARD OF DIRECTORS OF THE RANCHO CALIFORNIA WATER DISTRICT, RIVERSIDE COUNTY, CALIFORNIA, AMENDING, AND ADOPTING LOCAL GUIDELINES FOR IMPLEMENTING THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) [PUBLIC RESOURCES CODE §§ 21000 ET SEQ.] AND RESCINDING RESOLUTION NO. 2025-5-2

WHEREAS, the California Legislature has amended the California Environmental Quality Act ("CEQA") (Pub. Resources Code §§ 21000 et seq.), the Natural Resources Agency has amended portions of the State CEQA Guidelines (Cal. Code Regs, tit. 14, §§ 15000 et seq.), and the California courts have interpreted specific provisions of CEQA; and

WHEREAS, Public Resources Code section 21082 requires all public agencies to adopt objectives, criteria, and procedures for (1) the evaluation of public and private projects undertaken or approved by such public agencies, and (2) the preparation, if required, of environmental impact reports and negative declarations in connection with that evaluation; and

WHEREAS, the Rancho California Water District must revise its local guidelines for implementing CEQA to make them consistent with current CEQA provisions and interpretations, as well as the State CEQA Guidelines.

NOW, THEREFORE, the Rancho California Water District ("District") hereby resolves as follows:

SECTION 1. The District hereby adopts the "2026 Local Guidelines for Implementing the California Environmental Quality Act," a copy of which is on file at the offices of the District and is available for inspection by the public.

SECTION 2. Resolution No. 2025-5-2 is hereby rescinded. The District's Local CEQA Guidelines, which were revised as of April 29, 2026, are to be completely replaced by the attached Local Guidelines, which shall apply to any project for which a draft Environmental Impact Report or proposed Negative Declaration has not been prepared.

APPROVED, ADOPTED, and SIGNED, this 14th day of May 2026.

_____

Brian J. Brady, President of the
Board of Directors of the
Rancho California Water District

ATTEST:

_____

Jennifer A. Serna, Secretary of the
Board of Directors of the
Rancho California Water District

STATE OF CALIFORNIA)
) ss.
COUNTY OF RIVERSIDE)

I, Jennifer A. Serna, Secretary of the Board of Directors of the Rancho California Water District, do hereby certify that the Board of Directors duly adopted the foregoing Resolution No. 2026-5-Draft of said District at a regular meeting thereof held on the 14th day of May 2026, and that it was so adopted by the following vote:

AYES: DIRECTORS:

NOES: DIRECTORS:

ABSENT: DIRECTOR:

ABSTAIN: DIRECTORS:

_____

Jennifer A. Serna, Secretary to the
Board of Directors of the
Rancho California Water District

(SEAL)

1.B

Rancho Water

COMMITTEE ACTION

ENGINEERING AND OPERATIONS COMMITTEE

April 30, 2026

ITEM 1.B: Review and Recommend Approval of Publishing the Unclaimed Funds Report

RESPONSIBLE/LEAD STAFF MEMBER(S):

Carli Covey, Accounting Supervisor

RECOMMENDATIONS:

Staff requests the Engineering and Operations Committee (Committee) recommend the Board of Directors (Board) approve publishing the report on unclaimed funds under the provisions of California Government Code Sections 50050-50053 related to unclaimed money in a local newspaper and posting the unclaimed list on Rancho California Water District's (Rancho Water/District) website.

DISCUSSION:

The majority of the unclaimed funds typically arise from customers who close their account(s) with a balance owed to them and move away, leaving no forwarding address. There are also some service request refunds and vendor-related payments that remain unclaimed.

After attempting to locate the payee, the unclaimed amount remains with Rancho Water. The District currently has 206 unclaimed checks, totaling $105,295.19, dating back 10 years from June 30, 2025. Prior to publishing the report on unclaimed funds, the District will attempt to locate the payee by taking the following actions:

- Confirm the payee address is correct and current, which includes searching for alternate address, phone number, or email;
- Search for other accounts under the same customer name (only applicable to refunds);
- Perform a Google search on the internet for the name; and
- Send a final attempt notification letter.

Government Code recommends a 3-year holding period for unclaimed funds; however, the Board has established a 10-year holding period for the unclaimed funds to provide customers with additional opportunity to claim their monies. If no claim for re-issue is received after the holding period, the unclaimed fund is removed from the list and any funds held are released back to the Rancho Water.

ALTERNATIVES:

Take no action

FISCAL ANALYSIS:

After implementing the provisions of California Government Code Sections 50050-50053, the District holds a liability account for stale-dated checks totaling $105,295.19, which is relieved when items become older than three years.

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

1. Unclaimed Funds 2026 Publication

Rancho Water

NOTICE IS HEREBY GIVEN pursuant to Government Code 50050, 50051, and 50052 that the following money has remained unclaimed in the Rancho California Water District custody of its officers for at least six months from June 30, 2025:

NAME	CHECK #	DATE	AMOUNT
79 AVOCADO RANCH	165872	01/12/2023	$ 2,714.35
ADRIENNE AND RONALD WHITE	151257	06/10/2019	$ 91.65
ALBERT CHIWANDAMIRA	170151	01/11/2024	$ 20.08
ALBERT PATTERSON	162655	03/16/2022	$ 22.04
ALEX M AND CHEREE RAY	138304	07/26/2016	$ 985.29
ANDIE MARCOL	165868	01/12/2023	$ 690.10
ANNA FLORES	133172	06/10/2015	$ 35.37
ANTHONY ARMENTROUT	167413	05/25/2023	$ 67.42
AUDREY MARA	150490	04/10/2019	$ 154.91
B & P OIL SERVICES INC	155559	05/20/2020	$ 2,367.13
BEVERLY BRESLEN	157098	10/14/2020	$ 62.36
BHUPIDER DHILLON	134892	10/22/2015	$ 51.73
BIG RED PRINTS	153226	11/07/2019	$ 228.91
BOOT BARN INC	149086	12/10/2018	$ 175.00
BOYNTON & ASSOCIATES	140431	01/25/2017	$ 89.23
BRUCE WECKESSER	157012	10/07/2020	$ 21.08
BUFFALO CONSTRUCTION INC	175838	04/24/2025	$ 636.62
CA WATER ENVIRONMENT ASSOC	156642	09/02/2020	$ 296.00
CARL ARMANDO	164768	09/28/2022	$ 89.19
CARLA HART	144404	11/21/2017	$ 133.22
CHANDRA PATEL	141567	04/25/2017	$ 159.61
CHARLES BLAKE	156622	09/02/2020	$ 41.88
CHARLES FIELD	141338	04/10/2017	$ 452.85
CHUNG HIN	167630	06/08/2023	$ 388.81
CLARK TIDWELL	159368	05/12/2021	$ 18.47
COLEMAN PIPELINE	131689	02/10/2015	$ 500.00
CREEKSIDE BUSINESS PARK	142305	06/08/2017	$ 32.62
CROWN CASTLE	164613	09/14/2022	$ 3,470.79
DALIA DAWOOD ELSAYED	134669	10/08/2015	$ 31.08
DANIEL MONTIJO	167232	05/10/2023	$ 107.76
DANIEL VALDEPENA	141751	05/10/2017	$ 25.71
DANTE MAZZI	157112	10/14/2020	$ 48.19
DAVELEEN FANENE	173127	09/12/2024	$ 46.32
DAVID ARNTSON	154349	02/11/2020	$ 198.10
DAVID BAXTER	165515	12/07/2022	$ 242.07
DAVID BAXTER	172816	08/13/2024	$ 38.44
DAVID C. AND ANNE M. ROCHMAN	132187	03/25/2015	$ 43.35
DAVID PINSON	143541	09/07/2017	$ 60.31
DEAN AND SULTANA DAYA	164791	09/28/2022	$ 19.93

Rancho Water

NAME	CHECK #	DATE	AMOUNT
DECY RUNKLE	157095	10/14/2020	$ 70.46
DEEDEE BELLS INC	169083	10/12/2023	$ 211.88
DEL QUINANOLA	149400	01/10/2019	$ 599.24
DENNIS BEDFORD	167802	06/22/2023	$ 83.74
DON JOHNSON	162662	03/16/2022	$ 60.26
DONNA KIRKMAN	164769	09/28/2022	$ 97.36
DOROTHY & FRANK MCPHILLIPS	138116	07/08/2016	$ 89.45
DR HORTON	152830	10/10/2019	$ 634.12
ELAINE LIVINGSTON	161581	12/08/2021	$ 105.83
ELIZABETH CHIPPINDALE	131486	01/22/2015	$ 100.00
EMERALD BAY CAPITAL INC AS TRUSTEE	140420	01/25/2017	$ 155.50
EPIC MANAGEMENT	150299	03/25/2019	$ 133.30
ERNEST HUERTAS	166752	03/29/2023	$ 149.92
ESCROW TRUST ACCOUNT	171196	03/28/2024	$ 1,781.14
EVANGELIO RAMIREZ	163702	06/22/2022	$ 45.31
EVELYN PADILLA / MIGUEL GONZALEZ	131470	01/22/2015	$ 567.34
EXCEL RENTAL CENTER	133169	06/10/2015	$ 76.78
FIRST AMERICAN TITLE	133924	07/30/2015	$ 395.00
GABRIEL TAUBER	150861	05/09/2019	$ 68.00
GARRETT WINBURY	138457	08/10/2016	$ 224.40
GERALD FLOM	163170	05/04/2022	$ 813.85
GERALDINE KIRK	163173	05/04/2022	$ 200.00
GERARDO MARRON	175863	04/24/2025	$ 179.76
GHAZALEH JAMES	152433	09/10/2019	$ 18.32
GILBERT ORTIZ	151259	06/10/2019	$ 150.29
GLENARCH PC	172809	08/13/2024	$ 1,863.09
GOOD FAITH PROPERTIES GROUP, L	162950	04/14/2022	$ 84.00
GREGORY D SMITH	145867	03/22/2018	$ 59.69
HALL FAMILY HOLDINGS LLC	172821	08/13/2024	$ 732.51
HONOR MOORE	143539	09/07/2017	$ 77.12
HOWARD E AND SEAN OGDEN	169081	10/12/2023	$ 905.26
JACQUELINE BROLLIAR	173613	10/31/2024	$ 588.56
JAG INVESTMENTS	153595	12/10/2019	$ 326.59
JAMES BECK	141130	03/23/2017	$ 156.02
JAMES MINSKY	150487	04/10/2019	$ 81.22
JAMES R JACKSON	165860	01/12/2023	$ 1,514.10
JAMES SCOTT	140415	01/25/2017	$ 75.00
JANICE BASHORE	150488	04/10/2019	$ 85.92
JANICE GRAY	163171	05/04/2022	$ 288.35
JASON MONTES AND HEATHER MATTH	166122	02/02/2023	$ 20.00
JEFFREY MAYS	161587	12/08/2021	$ 69.26
JIATIAN YUE	150302	03/25/2019	$ 59.53
JIMMY SNYDER	163703	06/22/2022	$ 150.70
JOAN DARRIN	165871	01/12/2023	$ 813.33

Rancho Water

NAME	CHECK #	DATE	AMOUNT
JOHANNA HERTEL	163698	06/22/2022	$ 49.28
JOHN GAMMON	165856	01/12/2023	$ 445.30
JOHN TIEDT	176198	05/22/2025	$ 15,285.22
JOHN WAITE	165859	01/12/2023	$ 691.98
JOLANTA KAMISOVIENE	139533	11/10/2016	$ 190.65
JORDAN HINZMAN	168778	09/14/2023	$ 92.20
JOSE VALENCIA	150296	03/25/2019	$ 87.40
JOSEPH DACY	164224	08/10/2022	$ 1,894.45
JSB LA CRESTA GROUP	151678	07/10/2019	$ 687.07
JUAN VALDOVINOS	147234	07/10/2018	$ 971.21
JUAN VALDOVINOS	149401	01/10/2019	$ 996.15
JULIAN MOEN	156627	09/02/2020	$ 207.13
KATHERINE HERNANDEZ	163169	05/04/2022	$ 159.59
KATHY CLOSSON	145131	01/25/2018	$ 419.36
KCS CONSTRUCTION	156830	09/23/2020	$ 845.39
KEEANI FLORES	138117	07/08/2016	$ 115.35
KENNETH DIAMOND	155823	06/17/2020	$ 139.07
KRISTI ROBINSON	151258	06/10/2019	$ 40.00
KROGER UTILITIES	176622	06/26/2025	$ 409.97
KYLE CURLEY	142973	07/25/2017	$ 34.89
LAURIE STEFFAN	148700	11/08/2018	$ 119.66
LEE & STIRES INC	149066	12/10/2018	$ 948.24
LEONIDA BUILDERS INC.	143549	09/07/2017	$ 340.76
LIBERTY YACHT MGMT LTD	169335	11/02/2023	$ 780.34
LINDA PEEK	157006	10/07/2020	$ 100.40
LISA SURITA	133558	07/09/2015	$ 24.93
LISA VANTRECE	152265	08/22/2019	$ 105.67
LOUIS RICHARDSON	147595	08/09/2018	$ 227.59
LOUIS ZHU	145153	01/25/2018	$ 29.87
LOUISE GARDNER AND MONIKA KERBER	145132	01/25/2018	$ 1,016.11
LYLE FIXSEN	141332	04/10/2017	$ 350.45
LYNN SZPYRKA	161582	12/08/2021	$ 25.00
MALIK JAMI	160067	07/14/2021	$ 234.48
MANUEL HUERTAS	167626	06/08/2023	$ 391.33
MANUEL HUERTAS	170137	01/11/2024	$ 391.33
MARCEL DUNCAN	151265	06/10/2019	$ 37.00
MARCELLA BARRIENTOS	133929	08/10/2015	$ 43.74
MARIA PRECIADO	160137	07/22/2021	$ 48.09
MARK A JONES	134662	10/08/2015	$ 58.00
MARK PETTENGILL	159534	05/26/2021	$ 33.13
MARTHA CHEWA	151271	06/10/2019	$ 21.88
MARVIN WATTS	141343	04/10/2017	$ 22.65
MARY JANE B. MALONEY	142967	07/25/2017	$ 110.52
MASCITTI TRUST	132199	03/25/2015	$ 21.50

Rancho Water

NAME	CHECK #	DATE	AMOUNT
MENDIA CONSTRUCTION	163954	07/14/2022	$ 1,427.47
MERRILL LYNCH PIERCE FENNER	142593	06/22/2017	$ 355.76
MICHAEL JOSEPH BLAKE	156635	09/02/2020	$ 104.56
MICHAEL SPYKES	133170	06/10/2015	$ 140.68
MICHAL BLEDSOE	174745	02/06/2025	$ 101.78
MICHELE REYNOLDS	165862	01/12/2023	$ 2,846.46
MICHELLE PACE	170147	01/11/2024	$ 2,251.62
MOTEL 6 0743-01-07-C	163691	06/22/2022	$ 172.84
MYRNA P AND CORNELIO D GABIOLA	131465	01/22/2015	$ 170.00
NARONG SURAKUL	151885	07/23/2019	$ 539.72
NATHAN ESTRADA	172817	08/13/2024	$ 20.12
NATHAN W HARRISON	144778	12/21/2017	$ 250.29
NATIONSTAR MORTGAGE	154716	03/10/2020	$ 131.74
NATIONSTAR MORTGAGE	154717	03/10/2020	$ 186.08
NATIONSTAR MORTGAGE	155826	06/17/2020	$ 82.93
NATIONSTAR MORTGAGE	155827	06/17/2020	$ 121.75
NATIONSTAR MORTGAGE	156625	09/02/2020	$ 17.15
NATURES WORLDS BEST	165858	01/12/2023	$ 1,025.75
NEW LIFE PROPERTY	152272	08/22/2019	$ 113.73
NICOLE DIRCKS	143336	08/24/2017	$ 36.93
NORRIS CONSULTING	147337	07/10/2018	$ 250.00
PARTNERSHIP FOR ACTIVE LEARNING SERVICES INC	176626	06/26/2025	$ 657.64
PERMITTING SPECIALIST	168508	08/24/2023	$ 3,891.64
PHILLIP COMER	146467	05/10/2018	$ 189.74
RDFN VENTURES	151671	07/10/2019	$ 55.35
RED TAIL LAND DEVELOPMENT LLC	172157	06/13/2024	$ 1,774.48
REGINA VALDEZ	142116	05/25/2017	$ 57.42
RICHARD FERRERAS	162658	03/16/2022	$ 273.71
RICHARD FERRERAS	163168	05/04/2022	$ 150.00
RICHARD FERRERAS	164221	08/10/2022	$ 600.00
RICHARD SOKOL	165864	01/12/2023	$ 678.30
RINDA HICKS	147422	07/25/2018	$ 100.00
ROBERT & TERESA BORDEN	149422	01/10/2019	$ 1,615.22
ROBERT LARSEN	162685	03/16/2022	$ 56.80
ROBERT MAUGER	165870	01/12/2023	$ 566.70
ROBERT OLSON	168211	08/03/2023	$ 39.88
ROBERT R MITCHELL	153752	12/20/2019	$ 129.34
SAADALLAH NASRI	164792	09/28/2022	$ 15.55
SAEED BASHIRTASH	171022	03/14/2024	$ 37.01
SAMONNAN PHANTH	150483	04/10/2019	$ 105.00
SANTY MARCELO	150289	03/25/2019	$ 38.77
SCOTT TALAMANTES	158134	01/20/2021	$ 56.63
SCOTT TORELLI	155933	06/24/2020	$ 30.42
SHANTAL ROBINSON	165863	01/12/2023	$ 851.79

NAME	CHECK #	DATE	AMOUNT
SHAWN & AMANDA CRAWLEY	160061	07/14/2021	$ 331.78
SHEREE GARCIA	138455	08/10/2016	$ 485.46
SHERYL JORDAN SACK	159075	04/14/2021	$ 140.39
STEPHEN AND RHONDA SANDERSON	167052	04/27/2023	$ 666.66
SUSAN L HENRY	148164	09/25/2018	$ 83.86
TELGIAN ENGINEERING & CONSULTI	172807	08/13/2024	$ 866.71
TEMECULA HOTEL PARTNERS	170620	02/15/2024	$ 2,807.26
TEMECULA PROP	170140	01/11/2024	$ 1,159.64
THARALDSON HOSPITALITY DEVELOP	172822	08/13/2024	$ 1,207.56
THE COLONY	142119	05/25/2017	$ 84.53
THEADORA FERGUSON	138462	08/10/2016	$ 505.80
THOMAS PIARINO	167800	06/22/2023	$ 57.11
THOMAS RITTER	150856	05/09/2019	$ 82.72
TODD COOK / LOANA HERNANDEZ	138464	08/10/2016	$ 444.55
TOMIS HOLDINGS INC	170146	01/11/2024	$ 1,034.78
TONY WILSON	149407	01/10/2019	$ 270.24
TOWN SQUARE MARKET PLACE	156839	09/23/2020	$ 300.00
U.S. ARMY CORPS OF ENGINEERS -	166590	03/16/2023	$ 990.28
UDI PROPERTIES	156834	09/23/2020	$ 816.84
VANESSA WESTMORELAND	138109	07/08/2016	$ 109.44
VERONICA FAULKNER	163708	06/22/2022	$ 188.27
WAYNE GARRETT	142477	06/22/2017	$ 62.84
WAYNE SAKAMOTO	168772	09/14/2023	$ 121.37
WENBIN SHI	167803	06/22/2023	$ 558.35
WENDY CHAVES	148343	10/10/2018	$ 124.18
WEST COAST RECOVERY CENTER	165867	01/12/2023	$ 2,436.42
WESTSIDE RESTORATION	151687	07/10/2019	$ 620.90
XIAOZHEN WEN	165869	01/12/2023	$ 568.24
XIN HU	166119	02/02/2023	$ 83.63
ZEVO PARK INDUSTRIAL LLC	156843	09/23/2020	$ 138.63
ZILAI ZHANG	149409	01/10/2019	$ 69.52
ZKS REAL ESTATE PARTNERS, LLC	157812	11/24/2020	$ 1,486.08
ZKS REAL ESTATE PARTNERS, LLC	156835	09/23/2020	$ 1,350.00
ZKS REAL ESTATE PARTNERS, LLC	156836	09/23/2020	$ 856.00
ZKS REAL ESTATE PARTNERS, LLC	159547	05/26/2021	$ 2,802.60

NOTICE IS FURTHER GIVEN pursuant to said Government Code Sections that it is proposed that said money will become the property of the Rancho California Water District after 10 years from the issue date, unless a claimant or claimants file a claim to request unclaimed monies with the District. The claim form can be found on the District website at www.ranchowater.com.

Date

Kathy Naylor, CFO/Treasurer

Rancho Water

COMMITTEE ACTION

ENGINEERING AND OPERATIONS COMMITTEE

April 30, 2026

ITEM 1.C: **Review of 2026 Water Shortage Contingency Plan and Consider Approval of a Public Hearing**

RESPONSIBLE/LEAD STAFF MEMBER(S):

Wendie Heie, Principal Engineer

RECOMMENDATIONS:

Staff recommends that the Engineering and Operations Committee reviews the 2026 Water Shortage Contingency Plan (WSCP) and approve a public hearing for final adoption on June 11, 2026 by the Board of Directors.

DISCUSSION:

The Urban Water Management Planning Act (California Water Code Section 10632) requires urban water suppliers to prepare and adopt a Water Shortage Contingency Plan (WSCP) as part of the Urban Water Management Plan (UWMP). The WSCP outlines Rancho California Water District's (Rancho Water/District) procedures for managing water supply shortages, including defined shortage stages, response actions, and communication protocols.

While the WSCP is incorporated into the UWMP, it may be adopted as a standalone document. Consistent with the approach during the 2020 UWMP cycle, the District is proceeding with the adoption of the WSCP concurrently with, but separate from, the UWMP. This approach allows the WSCP to function as an independently actionable document while maintaining consistency with the UWMP.

The 2026 WSCP is an update to the 2021 adopted plan and continues to meet all applicable requirements of the California Water Code. The Plan maintains the District's existing framework for drought response, including defined shortage stages, demand reduction actions, and mandatory and voluntary restrictions.

Unlike the 2021 WSCP, which included significant and wide-ranging updates, the 2026 WSCP includes only two substantive revisions. The first is the addition of Table 4-3, which establishes a framework for incorporating drought stage-specific rates into the District's water shortage response. Table 4-3 identifies anticipated "Adopted Water Commodity Drought Rates" corresponding to each water shortage stage. While the District's current rate structure does not yet include drought-specific rates, the District anticipates developing and implementing such rates as part of a future rate study. At that time, drought rates will be established in compliance with Proposition 218 requirements, ensuring they are proportional to the cost of service. Inclusion of

Table 4-3 provides the necessary framework to implement these rates in the future without requiring a subsequent amendment or re-adoption of the WSCP.

The second update is the revised Water Conservation Policy included as Appendix D of the WSCP. This update reflects implementation of the State's Urban Water Use Objective (UWUO) framework, which builds upon the District's existing conservation policies. Consistent with these requirements, the Policy includes general provisions related to restrictions on the use of potable water for non-functional turf, which are anticipated to be phased in beginning January 2027.

The updated WSCP satisfies all statutory requirements and maintains consistency with the District's long-term water supply planning efforts. Adoption of the WSCP will ensure the District remains compliant with State law while providing flexibility for future implementation of drought-specific rates.

ALTERNATIVES:

Not applicable

FISCAL ANALYSIS:

There is no immediate fiscal impact associated with adoption of the updated WSCP. Future fiscal impacts related to drought-specific rates will be addressed as part of a future rate study and adoption process.

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

1. Draft 2026 Water Shortage Contingency Plan



April 2026

Rancho California Water District

Water Shortage Contingency Plan

PUBLIC DRAFT

Revised: June 11, 2026 – Ordinance No. 2026-6-X
Revised: June 10, 2021 – Ordinance No. 2021-6-1
Revised: June 11, 2015 – Ordinance No. 2015-6-1
Revised: March 12, 2015 – Ordinance No. 2015-3-1
Revised: August 14, 2014 – Resolution No. 2014-8-1
Revised: June 11, 2009 – Resolution No. 2009-6-19
Revised: July 10, 2008 – Resolution No. 2008-7-4
Adopted: June 8, 2006 – Resolution No. 2006-6-16

2775 North Ventura Road, Suite 202
Oxnard, California 93036
805-973-5700
FAX: 805-973-1440

Water Shortage Contingency Plan

PUBLIC DRAFT

April 23, 2026

Prepared for

Rancho California Water District
42135 Winchester Road
Temecula, CA 92590

K/J Project No. 2544231*00

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Acronyms

The following abbreviations and acronyms are used in this report.

AB	Assembly Bill
Act	Urban Water Management Planning Act
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reading
AWE	Alliance for Water Efficiency
AWWA	American Waterworks Association
BMPs	Best Management Practices

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CII	commercial institutional and industrial customers
CWC	California Water Code
DDW	State Water Resources Control Board Division of Drinking Water
District	Rancho California Water District
DWR	Department of Water Resources
ECP	Emergency Communications Plan
EMWD	Eastern Municipal Water District
EOP	Emergency Operations Plan
ERP	Emergency Response Plan
GIS	Geographic Information System
LHMP	Local Hazard Mitigation Plan
MWD	Metropolitan Water District of Southern California
Rancho Water	Rancho California Water District
SRRRA	Santa Rosa Regional Resources Authority
SWP	State Water Project
UWMP	Urban Water Management Plan
Western Water	Western Municipal Water District
WSAP	Metropolitan Water District of Southern California's Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan

Section 1: Introduction

This plan documents the Rancho California Water District's Water Shortage Contingency Plan (WSCP) and Emergency Response Plan (ERP) per the requirements of the Urban Water Management Planning Act, Section 10632 of the California Water Code (CWC).

1.1 Declaration of Purpose of the Water Shortage Contingency Plan

For more than 60 years, Rancho California Water District (Rancho Water/District) has remained steadfast in its commitment to provide a reliable supply of high-quality water, wastewater, and reclamation services. Through leadership and representation, and working closely with its neighboring agencies, the District continues to plan for and meet the ever-changing needs of a growing and diverse community.

Rancho Water has taken purposeful and consistent actions to diversify the water supplies available to the Rancho Water service area while improving the efficiency of the District's operations and encouraging efficiency by customers. Because of those actions, Rancho Water hopes to avoid implementation of any measures within this WSCP but, in accordance with CWC Section 10632, and because of the responsibility for conserving the available water supply and protecting the integrity of water supply facilities (infrastructure), Rancho Water has prepared this WSCP, as a contingency measure. The WSCP evaluates appropriate actions to determine when a shortage exists, including in times of drought, water supply reductions from wholesalers, failure of water distribution systems, other emergencies, and regulatory statutes, rules, and requirements by state and federal agencies. This WSCP puts particular emphasis on the protection of public health, sanitation, fire protection, and public welfare. As such, this WSCP adopts regulations and restrictions on certain water use to conserve and manage the area's unique water resources, which are essential to ensure the continued viability of the community.

The purpose of this WSCP is to:

1. Monitor and compare anticipated supplies and demands consistent with Water Code Section 10632(a)(2).
2. Keep water use within supply and delivery capability.
3. Define procedures to be used when supply cannot meet demand or continuing pumping will result in harm to the supply source.
4. Familiarize all of Rancho Water's customers (residential, business, industrial, institutional/governmental and others) with procedures to be implemented when voluntary or mandatory water restrictions are in effect.

This WSCP has been developed in accordance with CWC Section 10632. The Code requires that the WSCP demonstrate the ability of an agency to meet demands under a supply shortage greater than 50 percent. This WSCP is an update of the WSCP adopted in June 2021 and is undertaken with an understanding of the general trends in water use, as well as an understanding of the developments and challenges of future water supplies. Of importance to this WSCP is "efficient" use of water, as encapsulated by the conservation standards in the *Making Water Conservation a California Way of Life* Regulation. The combination of implementation this regulation, , efforts to reduce outdoor water use, updates to the plumbing

code, and messaging promoting water conservation have resulted in a continuous downward trend in per capita water use in the Rancho Water service area. These reductions also Rancho Water customers' long-standing commitment to water conversation, through adoption of more efficient appliances, irrigation practices, and landscapes over time. This WSCP recognizes that, as customers become more efficient, it is harder to reduce demand with voluntary restrictions alone and it may be necessary to consider involuntary measures.

1.2 Legal Authority

The District has the legal authority to implement and enforce its WSCP. California Constitution Article X, Section 2 and CWC, Section 100 provide that water must be put to beneficial use, the waste or unreasonable use or unreasonable method of use of water shall be prevented, and the conservation of water is to be exercised with a view of the reasonable and beneficial use thereof in the interest of the people and the public welfare. Sections of CWC Chapter 3, commencing with Section 350 of Division 1, provide the authority for the governing body of a water agency to declare a water shortage and to adopt and enforce water conservation restrictions. (CWC §§ 350-359, 375-378.0).

The District's seven-member Board of Directors (Board) serves as its governing body and is charged with the management of, and granted the authority to conduct, the business and affairs of the District. As a public agency, the Board is subject to the statutory authority granted it through the CWC (Section 35300). Powers and legal authority are described fully in Section 3 of the District's Administrative Code. Activation of the WSCP is made upon recommendation of the General Manager. The authority of the General Manager and their relationship to the Board is also described in the District's Administrative Code.

If necessary, the District shall declare a water shortage emergency in accordance with CWC Chapter 3 of Division 1. Having declared a water shortage, the District has broad authority to implement and enforce regulations and restrictions for managing a water shortage. Per CWC Section 375(a):

> "Notwithstanding any other provision of the law, any public entity which supplies water at retail or wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity may, by ordinance or resolution adopted by a majority of the members of the governing body after holding a public hearing upon notice and making appropriate findings of necessity for the adoption of a water conservation program, adopt and enforce a water conservation program to reduce the quantity of water used by those persons for the purpose of conserving the water supplies of the public entity."

The water shortage contingency measures of this WSCP shall apply to all persons, customers, and property using water provided by the District. The terms "persons" and "customers" used in this WSCP include individuals, home and property owners, corporations, businesses, agencies, associations, and all other legal entities. A declaration of a water shortage condition as outlined below shall become effective immediately and shall be made by public announcement and published in a newspaper of general circulation.

1.3 Coordination with Wholesalers, Cities, and County of Riverside

When evaluating supplies, Rancho Water will coordinate with its wholesale agencies, including Western Municipal Water District (Western Water) and Eastern Municipal Water District (EMWD).

In the event that a shortage is declared, Rancho Water will coordinate with EMWD, Western Water, the City of Murrieta, the City of Temecula, and the County of Riverside for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code. This will be necessary to ensure efficient regional water management during periods of water supply shortage. An up-to-date list of contacts at each agency, with all pertinent information, is maintained by the District's Public Information Officer, who has developed the appropriate protocols.

1.4 Plan Preparation, Adoption, Submittal and Availability

the 2025 WSCP provides an update to the existing WSCP, adopted in June, 2021. Rancho Water began preparation of this update in September 2025. The public hearing for the Water Shortage Contingency Plan will be noticed in two local newspapers (The Press-Enterprise and the Californian), as prescribed in Government Code 6066, and will include the time and place of the hearing [text to be updated between draft and final]. Interested parties, including other local agencies, will be notified of the public hearing [text to be updated between draft and final]. The 2025 WSCP will be made available from the Rancho Water website for public inspection prior to the public hearing, so that comments could be received and discussed by the Board of Directors ahead of the adoption hearing [text to be updated between draft and final].

The final draft of the Plan will be adopted by the Board of Directors of Rancho California Water District by Resolution No. 2026-0XX (provided in Appendix A) and will be submitted to the Department of Water Resources (DWR) within 30 days of the approval hearing [text to be updated between draft and final]. Additionally, the adopted plan will be made available as required by the Water Code hearing.

Urban water suppliers are required to report and submit information related to the Water Shortage Contingency Plan in standardized tables developed by DWR. These standardized tables are provided as Appendix B of this document.

1.5 Relationship to the 2025 Urban Water Management Plan

Water Code Section 10632(a) requires that every urban water supplier prepare and adopt a WSCP as part of its Urban Water Management plan (UWMP). While the WSCP is a stand-alone document, it is updated and adopted in concert with the UWMP. Content of the WSCP is informed by the analysis of water supply reliability conducted pursuant to Water Code Section 10635 (contained in the 2025 UWMP). Tables and data from the 2025 UWMP are appended to this WSCP.

Rancho Water has traditionally had five umbrella water shortage stages. The CWC requires six water shortage stages be included in an UWMP, corresponding to shortages of 10, 20, 30, 40, 50 percent, and greater than 50 percent. The District has opted to retain its five stages and provide a crosswalk demonstrating the correlation between the District's five stages and the shortage stages required by the CWC and UWMP, as shown below:

Table 1-1
Correlation Between the District's Stages and 2025 UWMP

District Shortage Stage	CWC Standard Shortage Stage	Targeted Demand Reduction/Supply Enhancement
1 – Water Supply Watch	Not Applicable	Not Applicable
2 – Water Supply Alert	Not Applicable	Not Applicable
3 – Water Supply Warning		
3a	Not Applicable	Not Applicable
3b	1	Up to 10 percent
3c	2	Up to 20 percent
4 – Extreme Water Supply Warning		
4a	3	Up to 30 percent
4b, 4c	4	Up to 40 percent
5 – Catastrophic Water Supply Emergency		
5a, 5b	5	Up to 50 percent
5c	6	Greater than 50 percent

The subdivided stages used by Rancho Water allow the District greater granularity than those in the CWC and allows the District to target different water use classes according to shortage severity. District Stages 1, 2, and 3a do not have volumetric goals associated with them, but instead target water waste and non-essential outdoor water use. At District Shortage Stage 3b and greater, Rancho Water anticipates meeting volumetric targets that align with the CWC.

Shortage stage declarations will be made commensurate with the level of shortage identified during the District's Annual Assessment (see Section 2). Stage 1, 2, and 3a will be declared if the District is experiencing short-term and long-term effects of recent and/or ongoing drought conditions. For all other stages, the declaration will be triggered when the District's Annual Assessment finds that demand is anticipated to exceed projected supply by the shortage percentages presented in Table 1-1.

1.6 Water Shortage Contingency Plan Refinement Procedures

The WSCP will be updated and refined as appropriate and needed following significant changes to Rancho Water's supply portfolio, or significant changes to the water allocation plans of its supply agencies, but no less than every 5 years. The WSCP is a living document and is intended to be responsive to the effects of the measures taken during water shortages. During a shortage declaration, the District will monitor and analyze usage, according to the customer classes affected to determine of reduction goals are met. The Executive Team or its designee(s) will determine if additional measures need to be taken and also if more restrictive water budget reductions should be in place to achieve savings goals. Notably, during District Stages 4a and 4b, the WSCP provides a range of budget reductions for residential users, allowing the team to refine reduction goals after analyzing actual usage. If needed, the General Manager will propose the recommended updates for Board approval. The District will continue to ensure that the WSCP continues to meet its goals: ensuring availability of water to protect public health, provide sanitation and fire protection, and general public welfare. Refinement of the WSCP will be done as a joint effort of the following departments:

- Engineering
- Reclamation
- Water Use Efficiency
- Finance
- Customer Service
- Public Information

Section 2: Procedures for Annual Water Supply and Demand Assessment

CWC Division 1, Section 350, states:

> "The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection."

The Annual Assessment procedures described herein are one tool used to determine if a water shortage is to be declared.

Additional provisions in Water Code Section 10632.1 require urban water suppliers such as Rancho Water to conduct an annual water supply and demand assessment ("Annual Assessment"), on or before July 1 of each year, which must be submitted to DWR. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its Annual Assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later. The requirement to perform the Annual Assessment began in July 2022.

Supply risks include climate variability, drought, and regulatory actions outside of the control of the District. Developing and maintaining a healthy water supply portfolio to serve its customers has always been an ongoing Rancho Water priority, to ensure Rancho Water is prepared for drought and water shortages. The District's water supply portfolio primarily is primarily imported (60–70%) and local groundwater (30–40%), with recycled water providing ~5–8% of total deliveries (included within the local share). While the District can theoretically pump more water in the event of a drought, this response action is reserved for the most severe, acute water shortage situations caused by catastrophic events. To mitigate non-catastrophic shortages, the District has the option of purchasing additional imported water.

Water supply projections and hydrologic conditions are significant components in deciding when a drought response is needed. The amount of the water supply shortage contributes to the severity of drought declared and the necessary level of response from Rancho Water and customers.

2.1 Timeline for Conducting the Annual Assessment

Table 2-1 provides targets for performing the Annual Assessment. The table outlines actions for the current year and one year of drought. By starting to plan in October, Rancho Water will get a snapshot of conditions and can begin lining up the resources to mitigate supply and b outreach to customers to manage demand. Major actions are proposed in February, when an initial estimate of supply is made and compared to demand. A final annual assessment is proposed in May. The Annual Assessment procedures are intended to serve as a guideline and, as such, may be modified based on conditions observed during the evaluation period.

Table 2-1
Calendar for Performing Annual Assessment

Target Date	Action
Oct	Begin preparation of the Annual Recommended Production Report, which identifies the sustainable yield (both local and artificial recharge) for the following fiscal year. Includes an assessment of climatological conditions.
Dec	Convene the District's Executive Team[1] to discuss the WSCP.
Dec – Jan	Monitor Water Supply from the District's sources. Monitor demand for the previous year.
Feb	Reach out to Western Water and EMWD to confirm allocations from MWD. Determine unconstrained demand. Determine if a shortage will exist for the coming year. If a shortage exists, determine the extent of the shortage.
Mar	If required, present findings to the Board. General Manager makes recommendation of a drought[2]. Board gives approval for shortage declaration[2]. Prepare Annual Assessment for submission to DWR. Determine shortage level and what prohibitions and restrictions will apply.
Apr	Continue public outreach. Declare water shortage (if needed) and inform customers of budget reductions and specific restrictions and prohibitions that apply.
May	Continue public outreach. Declare water shortage (if needed) and inform customers of budget reductions and specific restrictions and prohibitions that apply.
June	Continue public outreach. Finalize Annual Assessment and submit to DWR.
July-Nov	Continue public outreach. Monitor customer response to the water shortage declaration and update the annual supply procedures, as needed.

1. The District's Executive Team is led by the General Manager, and includes the Assistant General Manager, the Director of Administration, and the Director of Human Resources, as well as senior managers from the Engineering, Operations, Legislative Affairs, and Public Information departments.

2. The General Manager has the discretion to select response measures in proportion to the severity of the drought. In particular, the reduction levels required at the different stages represent a cap and provide some flexibility in determining the exact reduction that will be required for each of the District's customer classes in order to close the water shortage gap. If required, the recommendation will be made at the March Board Meeting and the Board will vote on the stage declaration, the levels of budget reduction and the relevant restrictions and prohibitions that will apply.

2.2 Factors Affecting Supply

Rancho Water's potable water supply sources include water imported through the Metropolitan Water District of Southern California (MWD) and local supplies. Availability of supplies can be constrained due to circumstances including, but not limited to, drought, natural disaster, acts of state legislation, and declarations made by MWD.

2.2.1 Imported Water

Imported water originates from outside of the Santa Margarita River Watershed and generally consists of supplies from the Colorado River and the State Water Project (SWP). This water is acquired from MWD via the District's member agencies: Western Water for the Santa Rosa Division, and EMWD for the Rancho Division. As a result, the District is subject to MWD's allocation plans and policies during a water shortage. Historically, imported water has accounted for approximately 60 to 70 percent of the District's total water supply, including both treated and untreated water. Untreated imported water is used by the District to artificially recharge the Pauba Valley Basin to enhance production.

2.2.1.1 Metropolitan Water District of Southern California Drought Management Efforts

MWD's drought management efforts include storage of water during periods of surplus and implementation of demand management measures to minimize the impacts of water shortages on Southern California water users.

In its 2020 Water Shortage Contingency Plan, MWD put together a policy framework that brought together many elements of past reliability planning, including the Integrated Water Resources Plan, the Water Surplus and Drought Management Plan, the Water Supply Allocation Plan, the Emergency Storage Objective, and the Seismic Risk Assessment and Mitigation Plan (MWD, 2021).

The Water Surplus and Drought Management Plan provides policy guidance for managing regional water supplies during surplus and shortage conditions. The Plan provides an overall vision for operational supply management and characterizes a flexible sequence of actions to minimize the probability of severe shortages and reduce the likelihood of extreme shortages. The Water Supply Allocation Plan is MWD's policy and formula for equitably allocating available water supplies to the member agencies during extreme water shortages when MWD determines it is unable to meet all its demands.

The MWD Emergency Storage Objective is a planning estimate for emergency storage representing the amount of water that Metropolitan would hold in storage for the region in preparation for a catastrophic earthquake that would damage the aqueducts that transport imported water supplies to Southern California.

The MWD Water Shortage Contingency Plan defines surplus and shortage as follows:

- Surplus: Supplies are sufficient to allow MWD to meet full service demands, make deliveries to all interruptible programs, and deliver water to regional and local facilities for storage.

- Shortage: Supplies are sufficient to allow MWD to meet full service demands and make partial or full deliveries to interruptible programs, sometimes using stored water and voluntary water transfers.
- Severe Shortage: Supplies are insufficient to meet full service demands and MWD is required to make withdrawals from storage, call on its water transfers, and possibly call for extraordinary drought conservation.
- Extreme Shortage: Supplies are insufficient to meet full-service demands and MWD is required to allocate its available imported supplies to its member agencies.

The following actions represent MWD's plan for dealing with supply shortages and the general order they would be implemented:

- Draw on storage and flexible supplies
    - Call on storage created in the Colorado River system through existing agreements with other agencies with water rights
    - Draw on SWP carryover storage
    - Draw on DWR flexible storage in Castaic Lake and Lake Perris
    - Draw on SWP Banking Programs
    - Utilize State Water Contractors Buyers Group for flexible supplies
    - Initiate Yuba Accord Dry-Year Purchase
    - Initiate flexible supplies with San Bernardino Valley Municipal Water District
- Draw on stored water in Diamond Valley Lake, Lake Mathews, Lake Skinner, and conjunctive use programs
- Call for extraordinary drought conservation and public education.
- Implement Water Supply Allocation Plan.

During severe water shortage situations when public information campaigns and enhanced conservation programs are insufficient to generate the needed demand reduction, MWD may find it necessary to temporarily limit and allocate supplies to its member agencies. The Water Supply Allocation Plan (WSAP) includes specific formulas for calculating MWD supply allocations to each member agency and includes implementation elements needed for administering water supply allocations. The WSAP allocates supplies based on the needs of the water agencies throughout the service area.

Rancho Water will work with water agencies affected by the implementation of measures described in these plans to determine its allocation of available MWD imported supply during shortages. Further, the District will effectively manage imported water purchases and when Allocation Surcharges are imposed on the District for exceeding allocations as a result of customers exceeding their water budgets during times when MWD implements its WSAP. Such excessive water use is a violation of the water shortage stages of this WSCP and is subject to Volumetric Penalties.

2.2.2 Groundwater

The annual supply capacity of the District's local sources is limited by the sustainable yield of the basin. Each year, the District audits resources at the conclusion of the water year (year ending September 30). The underlying philosophy guiding the audit has been, and continues to be, one of sustainable basin management. This involves operating the basin within sustainable yield limits to avoid creating a permanent overdraft or other undesirable condition, such as water quality degradation, reduction of long-term production capacity, or land subsidence. Determination of the amounts of water hydrologically available to the District is an ongoing process of constant evaluation and review.

In the event that the availability of local and/or imported water supplies is constrained, the District's options include: 1) to purchase more imported water, if available, and/or 2) to implement demand management actions as described in this WSCP.

2.2.3 Assessing Supply Available in Current Year and One Dry Year

The Executive Team will evaluate water supplies for the current fiscal year (the fiscal year in which the Annual Water Supply Assessment is being prepared) and the next year, assuming that the latter will be a dry year. For groundwater projections, the District will rely on the most recent annual Groundwater Production Report, an audit prepared from October through February that estimates the sustainable groundwater capacity for the upcoming fiscal year. Therefore, this annual sustainable yield of local groundwater and artificial recharge will be used to set the maximum amount of groundwater for the coming fiscal year.

For the imported supplies, the Executive Team will rely primarily on the previous year's usage (also reported in the monthly Operations Report) and communication with its wholesalers (EMWD and Western Water) to estimate available water for the coming year. Analysis of imported water will also consider variables that may impact supply for the next year, including, but not limited to, MWD imposed allocations, state-imposed allocations, and climatological and hydrologic data for the District's location. California *DWR's Current Conditions* website (https://water.ca.gov/Current-Conditions), the USDA's California Water Supply Outlook Report, and the annual Groundwater Production Report are three sources that can provide the Executive Team with information on conditions affecting the local supply: snowpack, runoff, and reservoir storage.

Other considerations for supply may include planned infrastructure projects, both within the District and for its suppliers. Table 2-2 summarizes the water sources and the factors to be considered.

Table 2-2
Annual Assessment of Supply

Water Source	Factors to be Evaluated for Current Year	Estimating Supply Assuming Subsequent Year is Dry
Imported: EMWD[1]	Planned allocation	Planned dry year allocation
	Regulatory limitations	Regulatory limitations
	Declaration of CWC Standard Shortage Stage by MWD or the State	Declaration of CWC Standard Shortage Stage by MWD or the State
Imported: Western Water[1]	Planned allocation	Planned dry year allocation
	Regulatory limitations	Regulatory limitations
	Declaration of CWC Standard Shortage Stage by MWD or the State	Declaration of CWC Standard Shortage Stage by MWD or the State
Local Groundwater	Sustainable yield per the Annual Groundwater Production Report	Sustainable yield per the Annual Groundwater Production Report
	Any constraints due to infrastructure or water quality	Any constraints due to infrastructure or water quality
Recycled Water: Santa Rosa Regional Resources Authority (SRRRA)	Wastewater flow projections to the Santa Rosa Water Reclamation Facility (SRWRF)	Projected recycled water production during a dry year
	Projected recycled water production	Any planned increases to the recycled water production
Recycled Water: EMWD	Existing Take-or-Pay Agreement	Projected Annual Recycled Water Right Agreement
	Agreed upon annual recycled water right entitlement	

1. The District receives imported SWP and Colorado River water from MWD via direct purchase agreements with EMWD and Western Water. However, because these agreements are still subject to allocations from MWD these allocations are included in the supply analysis and forecast.

After assessing supply by source, the WSCP will develop a summary of each water source available, for the upcoming fiscal year and subsequent fiscal year, assuming that the subsequent fiscal year is a dry year.

2.3 Factors Affecting Demand

Historically, water demand increases during hot, dry weather conditions, with the magnitude of the increase varying based on the number of consecutive dry years and the level of conservation measures imposed. Conversely, during cool, wet years, water demand has decreased due to reduced outdoor irrigation needs. Consistent with historical trends, almost all demands are anticipated to increase by approximately 4 to 5% during a dry year. The exceptions are the following uses: wheeling, other (fire flows and construction meters), and Santa Margarita River Discharge, which are expected to remain consistent with normal-year usage.

2.3.1 Assessing Demand in Current Year and One Dry Year

A starting point for determining customer demand will be the previous year's usage, along with the results of the District's most recent water demand projection study, which provides the District with Geographic Information Systems-based (GIS) parcel-level potable and recycled water demand projections for the next twenty-five years. The previous fiscal year's usage is available from the District's billing software and summarizes usage according to customer class and allocated water budget tiers. The Executive Team will utilize the previous and current fiscal year's usage, in conjunction with the growth projected in the most recent water demand projection study, to develop unconstrained demands for the next upcoming two fiscal years.

These demand projections will be refined by incorporating any specific development projects or District programs or regulations which will impact demand projections. The District will be monitoring compliance with the water use efficiency standards for *Making Water Conservation a California Way of Life* and taking actions to increase the efficiency of CII customers. Rancho Water will also collaborate with customers to comply with Assembly Bill 1572, which bans use of potable water for irrigating non-functional turf. These regulatory and programmatic changes continue to shift consumption patterns across the District and may affect potable water demand from year to year.

The unconstrained demands for the upcoming fiscal year will account for the current hydrogeologic conditions, and those conditions anticipated for the upcoming fiscal year. The unconstrained demands for the subsequent fiscal year will assume a dry year. Rancho Water will prepare a table summarizing the two fiscal year projections of unconstrained demand. Water demand for each customer class within the District's service area will be included.

2.4 Criteria for Water Shortage Stages

The Executive Team will determine if a shortfall exists based on the supply and demand analysis and the criteria described below.

This section provides the locally applicable evaluation criteria for each of the District's Water Shortage Stages. CWC, Section 10632(a)(3)(B) authorizes Rancho Water to use water shortage stages that differ from the standard six (6) stages provided that it provides a narrative or graphic (see Table 1-1 above) that describes the relationship to the six standard shortage levels prescribed by the CWC.

2.4.1 Stage 1 – Water Supply Watch Criteria

The term Water Supply Watch acknowledges that while near-term regional supply and storage conditions may improve from time to time due to wet weather, there are continued long-term challenges that warrant continued wise and efficient use of water. These include ongoing regulatory restrictions on pumping from the Bay-Delta region for the SWP, which provides a significant portion of Rancho Water's imported water supply. In addition, Rancho Water's Mediterranean climate and average rainfall of fourteen inches in its service area make ongoing efficient water use imperative. Stage 1 has long been a part of the District's ongoing water conservation efforts and was adopted in response to the State mandate that retail water agencies in California work with customers to achieve a 20 percent reduction in per capita water

use by the year 2020. Stage 1 does not correspond to any CWC Standard Shortage Stage or MWD WSCP Shortage Stage.

2.4.2 Stage 2 – Water Supply Alert Criteria

There is a probability that the District may continue to experience short-term and/or long-term effects from recent or ongoing drought conditions. Additional voluntary water use reduction measures will be called upon during Stage 2. Some non-essential outdoor water use restrictions in the residential, commercial, institutional, and industrial (CII), dedicated landscape, and agricultural sectors may be implemented. Stage 2 does not correspond to any CWC Standard Shortage Stage or MWD WSCP Shortage Stage.

2.4.3 Stage 3 – Water Supply Warning Criteria

Stage 3 is comprised of multiple sub-stages (3a, 3b, and 3c), which correspond with up to a 20 percent shortfall. Water supply shortages (local or imported) for the District are expected, or the District is mandated by a regulatory agency with jurisdiction over the District, or MWD, to reduce water use up to 20 percent. Stage 3a does not correspond to any CWC Shortage Stage, while Stages 3b and 3c correspond to CWC Shortage Stages 1 and 2. Some restrictions on certain non-essential outdoor residential, CII, agricultural, and dedicated landscape water use will be implemented. The District will work to achieve an appropriate balance of water budget decreases to residential and dedicated landscape customers as water shortages increase. Volumetric penalties for excessive water usage may be imposed.

2.4.4 Stage 4 – Extreme Water Supply Warning Criteria

Stage 4 is comprised of multiple sub-stages (4a, 4b, and 4c), which correspond to supply shortfalls greater than 20 percent but less than 40 percent. Water supply shortages (local or imported) for the District are expected to worsen, or the District is mandated by a regulatory agency with jurisdiction over the District, or MWD, to reduce water use greater than 20 percent, but less than 40 percent. This may correlate to MWD's WSDM Plan stage of "Extreme Shortage". Stage 4a corresponds to CWC Standard Shortage Stage 3, while Stages 4b and 4c correspond to CWC Standard Shortage Stage 4. More severe restrictions on non-essential outdoor water use will be implemented. The District will work to achieve an appropriate balance of water budget decreases to all customer classes including residential, dedicated landscape, CII, agricultural, and agricultural/residential customers as water shortages increase. Volumetric penalties for excessive water usage may be imposed.

2.4.5 Stage 5 – Water Supply Emergency Criteria

Stage 5 is comprised of multiple sub-stages (5a, 5b, and 5c), which correspond to shortfalls of up to 50 percent and greater. Water supply shortages (local or imported) for the District are expected to further worsen, or the District is mandated by a regulatory agency with jurisdiction over the District, or MWD, to reduce water use up to 50 percent or greater. This may correlate to MWD's WSDM Plan stage of "Extreme Shortage" or may be as a result of an emergency situation, resulting in the inability of the District's water distribution system to deliver all the District's supply. Stages 5a and 5b correspond to CWC Standard Shortage Stage 5, while Stage 5c corresponds to CWC Standard Shortage Stage 6. Restrictions on all non-essential outdoor

and indoor water use will also be implemented. The District will work to achieve an appropriate balance of water budget decreases to all customer classes as water shortages increase. Volumetric penalties for excessive water usage may be imposed.

2.5 Analysis of Water Supply Reliability

The Executive Team will compare the supply projections from Section 2.2 to the demand projections in Section 2.3, in order to determine if a supply shortage is anticipated, the level of shortage, and, if necessary, prepare to implement its water shortage contingency plan. In addition to determining shortage (through the Annual Assessment), the CWC Section 10632(a)(1) instructs the WSCP to include an "analysis of water supply reliability conducted pursuant to Section 10635" which requires urban water suppliers like the District to assess the reliability of its water service to its customers during normal, dry, and multiple dry water years. This analysis was conducted in the 2025 Urban Water Management Plan and is summarized below. Consistent with the code, Tables 2-3 through 2-5 compare the total water supply sources available to the District with the long-term total projected water use over the next 20 years, in five-year increments, for a normal year, a single dry year, and a drought lasting five consecutive years. Methodologies for determining demand and supplies are referenced within the tables and provided in the publicly available 2020 UWMP. As shown in the tables, the District will have sufficient water supply to meet the projected demands under all the scenarios considered.

Table 2-3
Comparison of Supplies and Demands in Average/Normal Year (AF)

Water Supply Source	2030	2035	2040	2045	2050
Imported Treated and Untreated Water	56,650	58,250	60,300	62,400	64,650
Groundwater - Native	22,000	22,000	22,000	22,000	22,000
Recycled Water [b]	4,237	4,295	4,353	4,412	4,472
Groundwater Bank [c]	0	0	0	0	0
Total Supplies	***82,887***	***84,545***	***86,653***	***88,812***	***91,122***
Estimated Demands	***73,263***	***74,626***	***76,270***	***77,964***	***79,712***
Difference (Supply - Demand)	*9,625*	*9,919*	*10,384*	*10,848*	*11,410*
Difference as % of Demand	*13%*	*13%*	*14%*	*14%*	*14%*

Table 2-4
Comparison of Supplies and Demands in Single-Dry Year (AF)

Water Supply Source	2030	2035	2040	2045	2050
Imported Treated and Untreated Water	56,650	58,250	60,300	62,400	64,650
Groundwater - Native	22,000	22,000	22,000	22,000	22,000
Recycled Water	4,237	4,295	4,353	4,412	4,472
Groundwater Bank [a]	4,000	4,000	4,000	4,000	4,000
Total Supplies	***86,887***	***88,545***	***90,653***	***92,812***	***95,122***
Estimated Demands	***76,463***	***77,891***	***79,614***	***81,390***	***83,223***
Difference (Supply - Demand)	*10,425*	*10,653*	*11,039*	*11,422*	*11,900*
Difference as % of Demand	*14%*	*14%*	*14%*	*14%*	*14%*

a Banked groundwater is reserved for dry conditions; 4,000 AF assumed available in dry years

Table 2-5
Comparison of Supplies and Demands in Multiple-Dry Years (AF)

		2030	2035	2040	2045	2050
First year	Supply totals [a]	86,887	88,545	90,653	92,812	95,122
	Demand totals	76,463	77,891	79,614	81,390	83,223
	Difference	10,425	10,653	11,039	11,422	11,900
Second year	Supply totals [a]	86,887	88,545	90,653	92,812	95,122
	Demand totals	76,463	77,891	79,614	81,390	83,223
	Difference	10,425	10,653	11,039	11,422	11,900
Third year	Supply totals [a]	83,887	85,545	87,653	89,812	92,122
	Demand totals	76,463	77,891	79,614	81,390	83,223
	Difference	7,425	7,653	8,039	8,422	8,900
Fourth year	Supply totals [a]	81,676	83,330	85,436	87,591	89,904
	Demand totals	76,463	77,891	79,614	81,390	83,223
	Difference	5,213	5,439	5,822	6,201	6,682
Fifth year	Supply totals [a]	79,591	81,244	83,349	85,503	87,815
	Demand totals	76,463	77,891	79,614	81,390	83,223
	Difference	3,128	3,353	3,735	4,113	4,592

a Banked groundwater is reserved for dry conditions; 4,000 AF assumed available in dry years

2.6 Coordination with Other Agencies

As described in Section 5, in the event that a shortage is declared, Rancho Water will coordinate with EMWD, Western Water, the City of Murrieta, the City of Temecula, and the County of Riverside for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code. This will be necessary to ensure efficient regional water management during periods of water supply shortage. An up-to-date list of contacts at each agency, with all pertinent information, is maintained by the District's Public Affairs Manager, who has developed the appropriate protocols in the event of a local emergency, as defined in Section 8558(c) of the Government Code.

Section 3: Response to Catastrophic Failures

In addition to drought, other events that could trigger a water shortage include an earthquake, water system failures, fire, contamination, regional power outage, and state restrictions. CWC, Section 10632 (a)(4) requires an urban water supplier to prepare for a catastrophic interruption of water supplies. In the event of catastrophic failures of the water system, the District could activate Stage 5c of its WSCP. Applicable water budget reductions and mandatory restrictions and prohibitions are detailed in Sections 4.1.3 and 4.1.4, respectively.

3.1 Emergency Response Plan

Rancho Water's Emergency Operations Plan (EOP) addresses the planned mitigation strategies and response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies in or affecting the Temecula Valley and the surrounding area. This EOP describes the operations of the District's Emergency Operations Center (EOC), which is the central management entity responsible for directing and coordinating District emergency response activities.

The EOP establishes the framework for implementation of the California Standardized Emergency Management System for the District, which is located within the Riverside County Operational Area and Mutual Aid Region VI, as defined by the California Emergency Management Agency. By extension, the EOP will also implement the National Incident Management System. The EOP is intended to facilitate District and multi-agency coordination between cities, county, special districts, and state agencies in emergency operations. Although the repair and return of water distribution systems to normal operations is an important objective, the overriding goal of District staff in any emergency situation will be to take all actions required to protect the safety and welfare of human life.

3.2 Seismic Risk Assessment and Mitigation

CWC, Section 10632.5(a) requires that the WSCP include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities. As part of the Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP), Rancho Water assessed the seismic risk to all facilities in the jurisdiction (including District water facilities and supporting infrastructure), reviewed and assessed past disaster events, estimated the probability of future occurrences, and set goals to mitigate risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards, including earthquakes. The LHMP is available at: https://rivcoready.org/sites/g/files/aldnop181/files/users/user41/MJLHMP%205.1.25a.pdf. The Rancho Water Annex is provided as an Appendix to this WSCP.

The WSCP meets the requirements of the federal Disaster Mitigation Act of 2000 (Public Law 106-390) as well as the requirements of Water Code Section 10644. Based on the identified hazards, Rancho Water incorporates mitigation measures into the District's capital improvement program. A notable and significant seismic mitigation project undertaken by the District is Vail Dam Seismic and Hydrologic Remediation Project, which is underway.

Section 4: Stages of Action to Respond to Water Shortage

Rancho Water has developed a multi-stage contingency plan to reduce demand up to 50 percent and greater during a projected water shortage. Table 4-1 summarizes the percent reductions in supply that trigger the respective stages and the corresponding demand reduction that will required based on an Annual Assessment (see Section 2).

Table 4-1
Water Shortage Stages and Triggers/Demand Reduction Goals

	Trigger	Demand Reduction Goal Based on Projected Demand
1 Water Supply Watch	District is experiencing short term and long term effects of recent and/or ongoing drought conditions.	Reduce water waste. Voluntary demand reduction.
2 Water Supply Alert	District is experiencing short term and long term effects of recent and/or ongoing drought conditions.	Further reduce water waste. Voluntary demand reduction.
3 Water Supply Warning	3a - District is experiencing short term and long term effects of recent and/or ongoing drought conditions.	Further reduce water waste. Voluntary demand reduction.
	3b - annual supply is projected to be up to 10% less than the annual demand.	Reduce consumption by 10%.
	3c - annual supply is projected to be greater than 10%, and up to 20%, less than annual demand.	Reduce consumption by 20%.
4 Extreme Water Supply Warning	4a, 4b - annual supply is projected to be greater than 20%, and up to 30%, less than annual demand.	Reduce consumption by 30%.
	4c - annual supply is projected to be greater than 30%, and up to 40% less than annual demand.	Reduce consumption by 40%
5 Water Supply Emergency	5a, 5b - annual supply is projected to be greater than 40%, and up to 50%, less than annual demand.	Reduce consumption by 50%.
	5c - annual supply is projected to be more than 50% less than annual demand.	Reduce consumption by more than 50%

4.1 Shortage Response Actions

The District's contingency planning includes actions that can be taken should water shortages occur up to, and above, a 50 percent shortfall in supplies. As required by Section 10632(a)(3), the stages represent an ever-increasing gap between normally available water supplies and normally expected customer water use. This section outlines the responses that the District may implement in response to anticipated water supply shortages: supply augmentation, operational changes, demand reduction, and additional mandatory prohibitions. The measures to be taken are described below.

4.1.1 Supply Augmentation

At the current time, the District relies exclusively on imported water and local supplies to meet its potable water supply demands. All of these supplies can be compromised due to circumstances including, but not limited to, drought, natural disaster, acts of State legislation, and declarations made by MWD (precisely the circumstances that precipitate a water shortage). As a result, the District relies almost exclusively on curtailing demand to meet the gap between supply and demand.

Rancho Water is actively pursuing a banking project that will go into construction in 2027 and provide a drought supply as early as 2031. This banking project will be captured in the 2030 update to the WSCP.

4.1.2 Operational Changes

Rancho Water has made significant investments in the development of a software tool that is designed to analyze existing advanced metering infrastructure (AMI) data. This software is encoded with features that can be adopted to assess demand reduction during a drought. During normal, non-drought periods, the software is used to identify malfunctioning water meters to target for replacement and to measure water savings associated with water conservation efforts. During periods of drought, this latter feature can be used to determine if shortage response actions are bringing about the desired reduction goals.

The software analyzes historical water usage and weather data for each customer site that participates in a particular conservation project, and uses this data to create a baseline consumption model for each customer. This baseline model, along with actual weather data for the time-period, is used to predict how much water the customers would have used if they had not participated in the conservation program. The prediction is compared to the actual consumption that occurs following project participation and determines a gross water reduction. This tool has already shown to be effective in identifying inadvertent violations of the District's mandatory restrictions on water use.

4.1.3 Customer Demand Reduction

With little opportunity for supply augmentation, the District relies on constraining demand in order to meet water shortage gaps. Demand reduction measures are presented in Table 8-3R of Appendix B and are summarized in this section.

4.1.3.1 Customer Programs

Rancho Water promotes efficient water use at all times, offering a variety of programs that support agricultural, commercial, industrial, institutional, and residential customers. These programs place a strong emphasis on landscape performance and outdoor irrigation, since these areas provide the greatest opportunity for meaningful reductions in water use.

The CropSWAP program provides financial incentives to agricultural customers who convert from high-water-use crops to lower-water-use varieties and adopt improved irrigation practices. The program also supports regenerative agriculture by encouraging practices such as mulching, cover crops, soil moisture monitoring, improved fertigation, and refined irrigation scheduling. These approaches enhance soil health, improve irrigation uniformity, and reduce overall water demand on agricultural properties.

For commercial, industrial, and institutional properties, Rancho Water offers free landscape evaluations performed by trained landscape professionals. These evaluations identify irrigation efficiency opportunities, equipment upgrades, and recommended rebates. When a property is eligible for recycled water service, District staff assist customers in applying for Metropolitan Water District's On-site Retrofit Program, which provides financial incentives for converting potable irrigation or industrial systems to recycled water. Evaluations also help identify nonfunctional turf areas, and staff provide information about grants that may support turf replacement projects at schools, HOAs, and public facilities.

Residential customers have access to a range of tools that support efficient outdoor water use. These services include leak alerts supported by advanced metering infrastructure, free landscape evaluations, and landscape workshops offered throughout the year. The Temecula–Murrieta In Bloom webpage provides residents with climate-appropriate plant guides, contractor listings, and landscape design resources. Rancho Water also offers landscape design assistance through In Bloom Garden Designs and provides direct installation services through the In Bloom Direct Resources for Irrigation Performance (DRIP) Program, which includes on-site evaluations, installation of high-efficiency irrigation equipment, and reduced-cost irrigation repairs for eligible homes. Additional support is available through weather-based irrigation controller distribution events and ongoing rebates for a variety of indoor and outdoor efficiency upgrades.

Together, these programs help customers adopt efficient irrigation practices, reduce outdoor water use, and support Rancho Water's long-term water reliability objectives.

4.1.3.2 Water Budgets

Rancho Water utilizes a four-tier budget-based rate structure. The two, lowest priced tiers are designed to efficiently meet each customer's essential indoor and outdoor water needs. The least costly and most reliable source of water, local groundwater, is allocated first to Tier 1 usage. Imported water purchased from MWD, is used to meet remaining water demands in the higher tiers.

During each billing period residential and multifamily customers are allocated Tier 1 and Tier 2 water based on the household size, irrigated landscape area, and real-time weather conditions. Landscape customers are allocated a certain amount of water for outdoor irrigation needs. Tiers

3 and 4 apply to water use that exceeds a customer's allocated water budget. Each tier reflects the actual cost of service associated with providing water for a given parcel. The tier structure is summarized below:

Tiers	Residential Customers	Landscape Customers	Agricultural Customers
Tier 1	Indoor Tier	Ultra Efficient Outdoor Tier	Efficient Usage
Tier 2	Outdoor Efficient Tier	Outdoor Efficient Tier	In Excess of Efficient Usage Equal to 50% Efficient Usage Tier
Tier 3	Outdoor Inefficient Tier	Outdoor Inefficient Tier	Inefficient, Any usage above Tier 2
Tier 4	Wasteful	Wasteful	N/A

4.1.3.3 Customer Information

The District has developed "MyWaterTracker", an easy-to-use digital platform that enables customers to see and track their water use in real-time. The platform features a comparison of each customer's current water use to their individual household water budget and a leak tracking function which monitors water use and contacts customers if anomalous water use occurs or if a leak is suspected.

4.1.3.4 Customer Allocations

As shown in Table 4-2 below, in the event of a water shortage Rancho Water will adjust customer water budgets. The adjustments target inefficient outdoor water use during the smaller shortage stages and focus on additional outdoor reductions if greater shortages are anticipated. Only when a shortage of 50% or more is anticipated are customers asked to reduce indoor water use. The adjustment of the water budgets give customers flexibility to respond to the shortage in the way most appropriate for their situation.

Table 4-3 identifies the drought rate adjustments that correspond to each Water Shortage Contingency Plan (WSCP) stage, consistent with the District's rate structure. Rather than defining a standalone drought rate structure, the table aligns each shortage stage with the applicable drought rate that would be implemented under the District's adopted rates. These stage-specific adjustments (e.g., Adopted Water Commodity Rates – 10 Percent Reduction) represent the upper limit of the rate bands associated with each shortage stage and reflect the anticipated increase in the cost of providing water service during supply-constrained conditions, including higher-cost supplies and operational responses. The mandatory and optional restrictions identified in Table 4-2 continue to apply at each stage and work in conjunction with these rate adjustments to achieve demand reductions. Once drought reduction rates are adopted by the District, Table 4-3 will supersede Table 4-2. Consistent with Proposition 218, any such drought rates will be based on and limited to the proportional, incremental cost of service associated with each shortage stage.

Table 4-2
Water Shortage Stages, Budget Adjustments, and Restrictions

Rancho Water WSCP Stage	CWC Standard Shortage Stage	Percent Shortage Reduction	Customer Class		
			Residential, Single-Family and Multi-Family	*Agricultural, Agricultural/Residential, CII*	*Dedicated Landscape*
Water Budget Reductions					
1 – Water Supply Watch			None	None	None
2 – Water Supply Alert			None	None	None
3 - Water Supply Warning					
3a			None	None	None
3b	1	≤10 percent	Tier 3 – 50 percent	Tier 2 – 50 percent	Tier 3 – 50 percent
3c	2	≤20 percent	Tier 3 - 100 percent	Tier 2 – 100 percent	Tier 3 – 100 percent
4 - Extreme Water Supply Warning					
4a	3	≤30 percent	Tier 2 - 10 to 49 percent	Tier 1 – 10 percent	Tier 2 - 10 to 49 percent
4b	4	≤40 percent	Tier 2 – 50 to 99 percent	Tier 1 – 20 percent	Tier 2 – 50 to 99 percent
4c	4	≤40 percent	Tier 2 – 100 percent	Tier 1 – 45 percent	Tier 2 – 100 percent
5 - Water Supply Emergency					
5a	5	≤50 percent	Tier 1 – 10 percent	Tier 1 – 55 percent	Tier 1 – 100 percent
5b	5	≤50 percent	Tier 1 – 30 percent	Tier 1 – 60 percent	Tier 1 – 100 percent
5c	6	>50 percent	Tier 1 – 50 percent	Tier 1 – 70 percent	Tier 1 – 100 percent
Restrictions					
1 – Water Supply Watch			Water Waste Prohibited	Water Waste Prohibited	Water Waste Prohibited
2 – Water Supply Alert			Water Waste Prohibited	Water Waste Prohibited	Water Waste Prohibited
3 - Water Supply Warning					
3a			Water Waste Prohibited	Water Waste Prohibited	Water Waste Prohibited
3b	1	≤10 percent	• Irrigation prohibited between 9 am and 6 pm. • No irrigation until 48 hours after rainfall event.	• Recycled water users exempt from watering restrictions but must provide signage • No charity or fundraising car washes.	• Irrigation prohibited between 9 am and 6 pm. • No irrigation until 48 hours after rainfall event. • Do not allow irrigation water to leave the planted area.
3c	2	≤20 percent	• All restrictions of 3b • Customers in final construction must pre-pay for potable water meter to avoid mandatory restrictions.	• All restrictions of 3b • Customers in final construction must pre-pay for potable water meter to avoid mandatory restrictions.	• All restrictions of 3b • Customers in final construction must pre-pay for potable water meter to avoid mandatory restrictions.

Table 4-2 cont.

Rancho Water WSCP Stage	CWC Standard Shortage Stage	Drought Rate Structure			
Restrictions					
4 - Extreme Water Supply Warning					
4a 4b 4c	3 4 4	≤30 percent ≤40 percent ≤40 percent	• All restrictions of Stage 3 and • Potable water offset needed before installation of new potable water meter. • Washing of personal vehicles at home prohibited.	• All restrictions of Stage 3 • No new hydrant construction or temporary construction meter permits issued.	
5 - Water Supply Emergency					
5a 5b	5 5	≤50 percent ≤50 percent	• All restrictions of Stage 4 and • No irrigation of lawns, landscapes, and/or ornamental gardens. • No refilling recreational swimming pools or spas • No replacement water for ponds, lakes or water features	• All restrictions of Stage 4 and • No irrigation of lawns, landscapes, and/or ornamental gardens. • No refilling recreational swimming pools or spas • No replacement water for ponds, lakes or water features. • No potable water to be used for water features • No water for commercial car washes except at facilities using recycled or recirculating water • Hydrant construction and temporary construction meters rescinded. • No planting of new landscaping	• All restrictions of Stage 4 and • All hydrant construction and temporary construction meter permits rescinded • No planting of crop acreage in addition to existing acreage
5c	6	>50 percent	• All restrictions of Stage 5a and 5b and • No potable water to be used for water features	• All restrictions of Stage 5a and 5b	• All restrictions of Stage 5a and 5b

Table 4-3
Water Shortage Stages and Applicable Rates

Rancho Water WSCP Stage	CWC Standard Shortage Stage	Applicable Rates
Water Budget Reductions		
1 – Water Supply Watch		Adopted Water Commodity Rates
2 – Water Supply Alert		Adopted Water Commodity Rates
3 - Water Supply Warning		
3a		Adopted Water Commodity Rates
3b	1	Adopted Water Commodity Drought Rates – 10 Percent Reduction
3c	2	Adopted Water Commodity Drought Rates – 20 Percent Reduction
4 - Extreme Water Supply Warning		
4a	3	Adopted Water Commodity Drought Rates – 30 Percent Reduction
4b	4	Adopted Water Commodity Drought Rates – 40 Percent Reduction
4c	4	Adopted Water Commodity Drought Rates – 50 Percent Reduction
5 - Water Supply Emergency		
5a	5	Adopted Water Commodity Drought Rates – 50 Percent Reduction
5b	5	Adopted Water Commodity Drought Rates – 50 Percent Reduction
5c	6	Adopted Water Commodity Drought Rates –>50 Percent Reduction

4.1.3.5 Restrictions

In addition to encouraging customer water efficiency and customer allocations, Rancho Water will apply restrictions at different shortage stages. These are summarized in Table 4-2 and described below.

Moratorium or Net Zero Demand Increase on New Construction

Beginning in Stage 3b, and all higher stages, customers who have completed final construction drawings that have been approved by the District, will be provided with the opportunity to prepay for the associated potable water meter(s). These prepaid water meters would not be subject to the mandatory use restrictions discussed in this section, specifically a new moratorium or a no net zero demand increase requirement on new meters.

The District's Board will determine, as part of Stages 4a, 4b, and 4c, if a potable water offset is required for the installation of a new potable water meter, except for circumstances where there are specific health and safety concerns. The District's Board will determine, as part of Stages 5a, 5b, and 5c, if the installation of new potable water meters is allowed, except for circumstances where there are specific health and safety concerns.

Landscape Irrigation Restrictions

The District prohibits irrigation between 9:00 am and 6:00 pm and mandates that irrigation be conducted in a manner that does not allow water to run off from the irrigated property. Landscape irrigation with potable water is also prohibited for up to 48 hours after a measurable rainfall event. A complete list of irrigation restrictions is included in section 4.1.4.

Rancho Water identifies pools and spas separately from other water features, as the availability of potable water for special and/or decorative water features are restricted separately. Water features are permitted during early drought stages, but must use a recirculating pump. At the implementation of Stage 5a and above, the use of potable water as refill or makeup water for all water features, spas, or pools is prohibited. The District recommends the installation of pool and spa covers to minimize evaporative loss. During Stages 5a and 5b, no potable water is to be used for water features at commercial or institutional occasions, even if they have recirculating systems. During Stage 5c, this prohibition is expanded and no potable water may be used for water features for all customer classes, even if they have recirculating systems. The availability of recycled water for special water features can still be considered in all shortage stages, when consistent with existing recycled water permits issued by the California State Water Resource Control Board or the applicable Regional Water Quality Control Boards.

4.1.3.6 Recycled Water

Recycled water customers that use recycled water for outdoor irrigation are subject to the terms and conditions of the recycled water user agreement and the District's on-site recycled water irrigation systems manual. Under all stages described in this WSCP, water waste violates California law and the District's Water Conservation Policy.

4.1.4 Additional Mandatory Restrictions and Prohibitions

The District has specific prohibitions of end uses to support the varying rationing levels in Table 4-2. During a drought, the District gives priority to domestic water use, fire protection, and sanitation. Therefore, the restrictions and prohibitions specifically identify and target wasteful or low priority uses that are restricted during a water shortage emergency. Stage-specific mandatory prohibitions and restrictions are detailed below.

In all shortage stages water waste is prohibited. In addition, the use of potable water to irrigate nonfunctional turf at commercial, industrial, and institutional properties is prohibited at all times, consistent with state law.

4.1.4.1 Stage 1 – Water Supply Watch

Under Stage 1 conditions, customers are requested to continue to use water efficiently, maximize recycled water use, practice sensible voluntary water conservation, and take advantage of the District's indoor and outdoor water conservation tools and incentive programs to eliminate water waste. At the District's discretion, additional mandatory restrictions and Volumetric Penalties may be imposed, as deemed necessary.

All Customers

Customers shall abide by the following water conservation requirements at all times in all Water Shortage Stages:

1. Refrain from hosing down driveways and other hard surfaces, except for health and sanitary reasons.
2. Repair faucets, toilets, pipes, and other potential sources of water leaks.
3. Refrain from watering lawns on public medians.
4. Refrain from watering any landscape within 48 hours after measurable precipitation.
5. Adjust and operate all landscape irrigation systems in a manner that will maximize irrigation efficiency and avoid over watering or watering of hardscape and resulting in runoff.
6. Prevent excessively irrigating any lawn or landscape area that would cause the sheeting of water to flow; eliminate water runoff from lawns or landscape areas into any gutters, streets, or alleys.
7. Irrigate landscape only between 6 pm and 9 am. This provision does not apply when:
    - Customers irrigating with recycled water will be exempt from watering restrictions imposed, provided signage on the site conforms to recycled water use requirements and is clearly visible.
    - Manually watering during the establishment period of a new landscape
    - Supervised spot watering is done to address landscape issues
    - Temperatures are predicted to fall below freezing
    - Testing/repairing an irrigation system
    - Using drip and point-to-point irrigation systems
    - A longer watering window is needed due to system constraints
8. Do not use decorative fountains unless they are equipped with a recirculating system.
9. When installing plumbing fixtures, use low-flow devices, except for those that require high-flow fixtures for health and/or sanitary reasons. Where possible, install pool and spa covers to minimize water loss due to evaporation during non-operating days.
10. Do not allow water to run while washing vehicles, including autos, trucks, trailers, motor homes, boats, or others. Use a hose with an automatic shutoff valve to avoid runoff into gutters, streets, or alleys. Use a hose equipped with an automatic shutoff valve or other device that causes it to cease dispensing water immediately when not in use.
11. When installing new landscaping, refer to the Water Use Classification of Landscape Species. Plant low water California Friendly® Landscapes. Nonfunctional turf areas are not recommended. Turf lined channels are only permitted when justified by environmental regulations.
12. Refrain from watering during rain or high winds by turning off irrigation timers.
13. The use of potable water to irrigate nonfunctional turf at commercial, industrial, and institutional properties is prohibited at all times and under all water shortage stages, consistent with state law.

4.1.4.2 Stage 2 – Water Supply Alert

Under Stage 2 conditions, *all voluntary and mandatory use reduction measures included in Stage 1 remain in effect for all customer classes.* At the District's discretion, additional mandatory restrictions and Volumetric Penalties may be imposed, as deemed necessary.

Additional voluntary water use reduction measures are recommended at Stage 2 as discussed below.

All Customers

Voluntary water use reduction measures are requested of all customer classes, as follows:

- Eliminate sprinkler overspray from driveways and sidewalks.
- Divide irrigation runtimes into multiple cycles to eliminate runoff water that leaves the landscaped area.
- Install a self-adjusting "Smart" irrigation controller, and ensure the controller has a manual mode that will allow compliance with higher stages of the WSCP.
- Tune-up irrigation systems by checking for and repairing leaks and damaged sprinklers.
- Use of a broom instead of a hose to clean driveways, sidewalks, and other hardscape surfaces, except for California Department of Health Services prescribed health or sanitary reasons.
- Install pool and spa covers to minimize evaporative water loss.
- Use the District's MyWaterTracker online tool to track hourly/daily water consumption.
- Wash only full loads of laundry and/or dishes.
- Shorten showers and turn off faucets while brushing teeth or shaving.

Agricultural Customers

The District recognizes the importance of the agricultural industry to the local economy and strives to help sustain the economic viability of the agricultural industry within its service area through implementation of a variety of water use efficiency measures. The District recognizes agricultural properties as commercial enterprises; therefore, this WSCP regards agricultural water users similarly to commercial water users. For farms/agricultural users with homes on the property, the WSCP regards these agricultural accounts as commercial water users with some residential use. The following voluntary water use reduction measures are requested of all agricultural customers:

1. When possible, irrigate crops during the cooler nighttime hours to minimize evaporative water loss.
2. Tune-up agricultural irrigation systems by checking for and repairing leaks and damaged sprinklers/drippers.
3. Eliminate sprinkler overspray from driveways, access roads, and other non-irrigated surfaces.

4. Install a soil moisture-monitoring device such as a tensiometer or a capacitance probe. Use these devices to decide how often to irrigate.
5. Use weather data, including evapotranspiration (ET) information, and/or an irrigation scheduling calculator to determine irrigation runtimes. ET information is available through the District's MyWaterTracker portal, and irrigation scheduling calculators are available through various online resources.
6. Use the District's MyWaterTracker online tool to track hourly/daily water consumption. Agricultural customers are encouraged to enroll in District leak notifications.

To assist customers in complying with the voluntary water use reduction measures, enhanced outreach and customer support and communication programs will be implemented.

4.1.4.3 Stage 3 – Water Supply Warning

Under Stage 3 conditions, *all voluntary and mandatory use reduction measures included in Stages 1 and 2 remain in effect* for all customer classes. Decreases in Tier 3 inefficient use water budgets are imposed for residential, multi-family, and dedicated landscape customers. Decreases in Tier 2 inefficient use water budgets are imposed for commercial and agricultural customers. At the District's discretion, additional mandatory restrictions and Volumetric Penalties may be imposed, as deemed necessary. Additional water use reduction measures are mandated for all customer classes.

> **Stage 3b:** No variances or adjustments will be approved for filling swimming pools, establishing or expanding landscape area (not including agricultural customers), leaks not repaired within 48 hours, and existing outdoor water budgets. Residential and dedicated landscape Tier 3 water budgets are decreased by 50 percent; agricultural, agricultural/residential, and CII Tier 2 budgets are decreased by 50 percent.
>
> **Stage 3c:** Residential and dedicated landscape Tier 3 water budgets are eliminated; agricultural, agricultural/residential, and CII Tier 2 budgets are eliminated.

<u>CII Customers</u>

Stage 3 mandatory water use reduction measures for all CII customers are as follows:

1. CII and landscape customers are advised to adjust automatic irrigation timers according to changing weather patterns and landscape requirements.
2. Exceptions may be granted, as necessary, to provide for the health and welfare of the community, pursuant to state and federal regulations (e.g., dust control).
3. Commercial car wash operators will work to ensure most of the water used is captured and reaches the municipal wastewater system so that it can be recycled for reuse in community landscapes. Car wash operators shall work with the District to distribute discount coupons or other incentives to discourage the washing of vehicles in private driveways.
4. No CII entity shall allow the use of its premises for charity or fundraising car washes.
5. Drinking water shall not be served other than upon request in eating or drinking establishments, including, but not limited to, restaurants, hotels, cafes, cafeterias, bars, or other public places where food and drink are served and/or purchased.

6. Operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily. The hotel or motel shall prominently display notice of this option in each bathroom using clear and easily understood language.

Agricultural Customers

Stage 3 mandatory water use reduction measures for all agricultural customers are as follows:

1. If a new crop, in addition to that already planted, is installed, it must be done in accordance with industry-accepted irrigation best management practices (i.e., the system must contain pressure compensation and regulation devices) to guarantee excellent distribution uniformity.
2. Do not allow irrigation water to leave the planted crop area.

4.1.4.4 Stage 4 – Extreme Water Supply Warning

Under Stage 4 conditions, *all voluntary and mandatory use reduction measures included in Stages 1, 2, and 3 remain in effect* for all customer classes. Decreases in Tier 2 efficient use water budgets for residential, dedicated landscape, and multi-family customers are imposed. Decreases in Tier 1 efficient use water budgets for Agriculture and CII customers are imposed. Variances will be granted for health and safety only. The District's Board will determine if no new potable water meters are allowed, except for health and safety, unless water demand is offset to a net zero increase. Achieving net zero water increase could occur when potable water use of proposed development is no greater than current demand within the District's service area prior to installation of the new meters. At the District's discretion, additional mandatory restrictions and Volumetric Penalties may be imposed, as deemed necessary. Additional water use reduction measures are mandated for all customer classes.

Stage 4a: Residential and dedicated landscape, Tier 2 water budgets are decreased by 10 percent to 49 percent; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 10 percent.

Stage 4b: Residential, Tier 2 water budgets are decreased by 50 percent to 99 percent; dedicated landscape, Tier 2 water budgets are eliminated; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 20 percent.

Stage 4c: Residential, Tier 2 water budgets are eliminated; dedicated landscape, Tier 1 water budgets are eliminated; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 45 percent.

All Customers

Stage 4 additional mandatory water use reductions for all customer classes as follows:

1. Washing of personal vehicles at home (including autos, trucks, trailers, motor homes, boats, or others) is prohibited.

It is recommended that all customers install self-adjusting "Smart" irrigation controllers and ensure the controller has a manual mode to allow compliance with higher shortage stages. It is recommended that customers install pool and spa covers to minimize evaporative loss.

CII and Agricultural Customers

Stage 4 additional mandatory water use reduction measures for all CII and agricultural customers are as follows:

1. Recycled water customers must comply with requirements listed in Section 4.1.3.6.
2. No new hydrant-construction or temporary construction meter permits will be issued by the District.

4.1.4.5 Stage 5 – Water Supply Emergency

Under Stage 5 conditions, *all voluntary and mandatory use reduction measures included in Stages 1, 2, 3, and 4, remain in effect* for all customer classes. Decreases in Tier 1 efficient use water budgets for residential, multi-family, and dedicated landscape customers are imposed. Further decreases in Tier 1 efficient use water budgets for agricultural and CII customers are imposed. Variances for health and safety only. The District recommends the installation of pool and spa covers to minimize evaporative water loss. The District's Board will determine if no new potable water meters are allowed. At the District's discretion, additional mandatory restrictions and Volumetric Penalties may be imposed, as deemed necessary. Additional water use reduction measures are mandated for all customer classes.

Stage 5a: Residential, Tier 1 water budgets are decreased by 10 percent; dedicated landscape Tier 1 water budgets are eliminated; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 55 percent.

Stage 5b: Residential, Tier 1 water budgets are decreased by 30 percent; dedicated landscape Tier 1 budgets are eliminated; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 60 percent.

Stage 5c: Residential Tier 1 budgets are decreased by 50%. As in Stages 5a and 5b, dedicated landscape Tier 1 water budgets are eliminated; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 70 percent.

All Customers

Stage 5 additional mandatory water use reductions for all customer are as follows:

1. No irrigation of lawns, landscapes, and/or ornamental gardens. Vegetable gardens under 5,000 square feet in area grown for personal consumption are exempt.
2. Water for refilling recreational swimming pools and spas is prohibited.
3. No replacement water may be provided for ponds, lakes, or other special water features. Aeration equipment should be managed in such a way as to eliminate evaporative loss of water.
4. Turn off all decorative fountains, even if it has a recycling (recirculating) system, and consider using any remaining water to irrigate landscape. Make sure to empty completely so standing water does not attract insects.
5. Limit use of misting devices.
6. Shorten showers and turn off faucets while brushing teeth or shaving.

CII Customers

Stage 5 additional mandatory water use reduction measures for all CII customers are as follows:

1. No water for commercial car washes.
2. All hydrant construction and temporary construction meter permits will be rescinded by the District.
3. No planting of new landscaping (seed, sod, or other plant materials).

Agricultural Customers

Stage 5 additional mandatory water use reduction measures for all Agricultural customers are as follows:

1. All hydrant construction and temporary construction meter permits will be rescinded by the District.
2. No planting of crop acreage in addition to existing acreage.

4.1.5 Assessment of Shortage Response Action Effectiveness

The DWR guidance for WSCP asks that suppliers predict volumetric reduction for each of the response actions that it institutes during periods of shortage. Arriving at a reliable and accurate estimate of effectiveness of shortage response is difficult. Among the variables to consider variability in response to shortage actions according to customer class and income levels, and the effect of individual actions when they are enforced cumulatively and not sequentially.

The District's estimation of effectiveness of its drought response actions is influenced by the response during the 2015-2017 and 2022-2023 drought and by the experience of other California suppliers, as reported in the *Alliance for Water Efficiency* (AWE): *Use and Effectiveness of Municipal Irrigation During Drought*, January 2020 and the *American Water Works Association (AWWA) Water Conservation Programs Manual, M52*. While the District recognizes that variations in climate, economies of scale experienced by larger suppliers, and economic conditions may skew the assumptions, but considers this approach as the most reasonable means of estimating the effectiveness of its WSCP.

Table 4-3 presents the overall percent reductions in water use that the District anticipates will result from its shortage response actions. Where necessary, adjustments are made to the referenced reduction reported in the studies (e.g., AWE reports that customers who take advantage of turf reduction programs use 10 percent less water than those who do not). The table assumes that only 30 percent of customers will take advantage of this offer in the early stages of a drought, with this uptake level increasing to 80 percent in the most restrictive stage of a water shortage. Therefore, anticipated reduction for this shortage response action is assumed to be only 3 percent in Stage 3b but increase to 8 percent in Stage 5c. Similar uptake factors are applied for other demand response actions in the Table 4-3.

The majority of the shortage gaps will be filled by the mandated water budget reductions outlined in Table 4-2, along with Volumetric Penalties for excessive water usage. As with the other shortage response actions presented in Table 4-3, the effectiveness of this rationing in reducing

demand is anticipated to decline as water budget reductions become more onerous. This is consistent with observations of 'drought fatigue' by other agencies such as San Diego County Water Authority. For the early stages of a water shortage (3b – 4a) 100 percent compliance is assumed, and the District expects a 2 percent reduction in water use at Stage 3b, 5 percent at Stage 3c, and a 21 percent reduction in water use at Stage 4a. Compliance in later drought stages is assumed to decline to 50 percent and 60 percent and will result in the following reductions in water use: 31 percent in Stage 4b and 4c; 33 percent in Stage 5a and 5b; and 37 percent in Stage 5c.

Table 4-4
Anticipated Effectiveness of Demand Reduction Actions

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
1	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
1	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
1	Offer water use surveys	3	AWWA 2011 assumes savings of 10 percent for residential single family users. Adjusted for 50 percent residential customers and 20 percent uptake
1	Provide rebates for turf replacement	2	AWE assumes 10 percent. District assumes 20 percent uptake at this stage of water shortage
1	Provide rebates for landscape irrigation efficiency	N/A[1]	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
1	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
1	Provide rebates on plumbing fixtures and devices	N/A[1]	
2	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
2	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
2	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
2	Offer water use surveys	3	AWWA 2011 assumes savings of 10 percent for residential single family users. Adjusted for 50 percent residential customers and 20 percent uptake
2	Provide rebates for turf replacement	2	AWE assumes 10 percent. District assumes 20 percent uptake at this stage of water shortage
2	Provide rebates for landscape irrigation efficiency	1	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
2	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
2	Provide rebates on plumbing fixtures and devices landscape	N/A[1]	
2	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
3a	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
3a	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an digital platform.
3a	Offer water use surveys	3	AWWA 2011 assumes savings of 10 percent for residential single family users. Adjusted for 50 percent residential customers and 20 percent uptake
3a	Provide rebates for turf replacement	2	AWE assumes 10 percent. District assumes 2 percent uptake at this stage of water shortage
3a	Provide rebates for landscape irrigation efficiency	1	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
3a	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
3a	Provide rebates on plumbing fixtures and devices	N/A[1]	
3a	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
3b	Implement or Modify Drought Rate Structure and Volumetric Penalties	2	Residential and landscape Tier 3 budgets decreased up to 50 percent. Agricultural, CII, and agricultural/ residential Tier 2 are decreased by up to 50 percent. Assumes 100 percent compliance.
3b	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
3b	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
3b	Offer water use surveys	2	AWWA 2011 assumes savings of 10 percent for residential single-family users. Adjusted for 50 percent residential customers and 20 percent uptake
3b	Provide rebates for turf replacement	3	AWE assumes 10 percent. District assumes 30 percent uptake at this stage of water shortage
3b	Provide rebates for landscape irrigation efficiency	1	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
3b	Water Features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
3b	Provide rebates on plumbing fixtures and devices	N/A[1]	
3b	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
3b	Other – require automatic shut of hoses	N/A[1]	
3b	CII - restaurants may only serve water upon request	N/A[1]	
3b	CII - lodging establishment must offer opt out of linen service	N/A[1]	
3c	Implement Modified Drought Rate Structure and Volumetric Penalties	5	Residential and landscape Tier 3 budgets decreased up to 100 percent. Agricultural, CII, and agricultural/ residential Tier 2 is decreased by up to 100 percent. Assumes 100 percent compliance.
3c	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
3c	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
3c	Offer water use surveys	2	AWWA 2011 assumes savings of 10 percent for residential single-family users. Adjusted for 50 percent residential customers and 20 percent uptake

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
3c	Provide rebates for turf replacement	3	AWE assumes 10 percent. District assumes 30 percent uptake at this stage of water shortage
3c	Provide rebates for landscape irrigation efficiency	3	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
3c	Water Features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
3c	Provide rebates on plumbing fixtures and devices	N/A[1]	
3c	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
3c	Other – require automatic shut of hoses	N/A[1]	
3c	CII - restaurants may only serve water upon request	N/A[1]	
3c	CII - lodging establishment must offer opt out of linen service	N/A[1]	
4a	Implement Modified Drought Rate Structure and Volumetric Penalties	21	Residential Tier 2 budgets are decreased by up to 49 percent; Landscape budgets are completely eliminated; and CII, agricultural, and agricultural/residential Tier 1 budgets are decreased by up to 10 percent. Assumes 100 percent compliance.
4a	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
4a	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
4a	Offer water use surveys	2	AWWA 2011 assumes savings of 10 percent for residential single-family users. Adjusted for 50 percent residential customers and 20 percent uptake
4a	Provide rebates for turf replacement	3	AWE assumes 10 percent. District assumes 30 percent uptake at this stage of water shortage
4a	Provide rebates for landscape irrigation efficiency	3	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
4a	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
4a	Provide rebates on plumbing fixtures and devices	N/A[1]	
4a	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
4a	Other – require automatic shut of hoses	N/A[1]	
4a	CII - restaurants may only serve water upon request	N/A[1]	
4a	CII - lodging establishment must offer opt out of linen service	N/A[1]	

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
4b, 4c	Implement Modified Drought Rate Structure and Volumetric Penalties	31	Residential Tier 2 budgets are decreased by up to 100 percent; Landscape budgets are eliminated; and CII, agricultural, and agricultural/residential Tier 1 budgets are decreased by up to 45 percent. Assumes only 60 percent compliance at this stage.
4b, 4c	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
4b, 4c	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
4b, 4c	Offer water use surveys	3	Single-family, multifamily, landscape, and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10 percent for residential single-family users Adjusted for 50 percent residential customers and 50 percent uptake
4b, 4c	Provide rebates for turf replacement	5	AWE assumes 10 percent. District assumes 50 percent uptake at this stage of water shortage
4b, 4c	Provide rebates for landscape irrigation efficiency	3	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
4b, 4c	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
4b, 4c	Provide rebates on plumbing fixtures and devices	N/A[1]	
4b, 4c	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
4b, 4c	Other – require automatic shut of hoses	N/A[1]	
4b, 4c	CII - restaurants may only serve water upon request	N/A[1]	
4b, 4c	CII - Lodging establishment must offer opt out of linen service	N/A[1]	
4b, 4c	Other - prohibit vehicle washing except at facilities using recycled or recirculating water	N/A[1]	
5a, 5b	Implement Modified Drought Rate Structure and Volumetric Penalties	33	Residential Tier 1 budgets are decreased up to 30 percent; agricultural and agricultural/residential Tier 1 budgets are decreased by up to 60 percent. Assumes 50 percent compliance.
5a, 5b	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
5a, 5b	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
5a, 5b	Offer water use surveys	3	Single-family, multifamily, landscape, and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10 percent for residential single family users Adjusted for 50 percent residential customers and 50 percent uptake
5a, 5b	Provide rebates for turf replacement	5	AWE assumes 10 percent. District assumes 50 percent uptake at this stage of water shortage
5a, 5b	Provide rebates for landscape irrigation efficiency	3	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
5a, 5b	Water Features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
5a, 5b	Provide rebates on plumbing fixtures and devices	N/A[1]	
5a, 5b	Landscape – Restrict or prohibit runoff from landscape irrigation	N/A[1]	
5a, 5b	Other – Require automatic shut of hoses	N/A[1]	
5a, 5b	CII - Restaurants may only serve water upon request	N/A[1]	
5a, 5b	CII - Lodging establishment must offer opt out of linen service	N/A[1]	
5a, 5b	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	N/A[1]	

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
5a, 5b, 5c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	N/A[1]	
5a, 5b	Other water feature or swimming pool restriction	N/A[1]	Water for refilling pool and spa prohibited
5c	Implement Modified Drought Rate Structure and Volumetric Penalties	37	Residential Tier 1 budgets are decreased by 50 percent; agricultural and agricultural/residential Tier 1 budgets are decreased by up to 70 percent. Assumes 50 percent compliance.
5c	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
5c	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
5c	Offer water use surveys	4	Single-family, multifamily, landscape, and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10 percent for residential single family users. Adjusted for 50 percent residential customers and 80 percent uptake
5c	Provide rebates for turf replacement	8	AWE assumes 10 percent. District assumes 80 percent uptake at this stage of water shortage
5c	Provide rebates for landscape irrigation efficiency	4	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 80 percent.
5c	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	No water for water features is allowed, for all customer classes, even if they have recirculating systems.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
5c	Provide rebates on plumbing fixtures and devices	N/A[1]	
5c	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
5c	Other – require automatic shut of hoses	N/A[1]	
5c	CII - restaurants may only serve water upon request	N/A[1]	
5c	CII - Lodging establishment must offer opt out of linen service	N/A[1]	
5c	Other water feature or swimming pool restriction	N/A[1]	Water for refilling pool and spa prohibited

1 Provides additive but statistically insignificant water savings

Section 5: Communications Protocols

Successful implementation of this Water Shortage Contingency Plan will require coordination with agencies that supply Rancho Water, neighboring retail water agencies, land use agencies, and customers.

The WSCP communication protocol will be led by the District's Public Information Officer, who will receive assistance from the Customer Service Department. The District's WSCP communication protocol is in place prior to a water supply shortage. The protocol will be coordinated with the District's partner agencies at all stages of a shortage. Close coordination is critical to minimize confusion and maximize compliance by District water customers. During shortages, the state often imposes water reduction targets that vary widely even for water districts within close proximity to each other. Often, DWR and MWD engage in communication activities that extend to the District's service area. District communications personnel will coordinate messaging with partner agencies (EMWD and Western Water) to ensure clear and consistent local messaging throughout all stages of a water shortage.

Upon completion of the Annual Assessment and the declaration of a shortage by the Board, the District will inform the public if a shortage exists or is anticipated, the level of the shortage, the conditions that trigger the shortage, shortage stage that has been activated, and the specific shortage response actions that will be in place. Stage-specific communication protocols to be employed by the District are outlined below. The District has an Emergency Communication Plan (ECP) that is set up to allow staff to systematically follow a checklist of items to respond promptly, accurately, and efficiently to emergencies. In the event of a catastrophic failure of the water supply system (such as in Stage 5c), the measures of the ECP will be activated as follows.

Table 5-1
Communications Procedures

Stage	Procedures	Dissemination Method
1 **Water Supply Watch**	Initiate public information campaign requesting voluntary reduction in water use and reminding public of ongoing water conservation requirements. Offer residential water surveys and landscape water audits and provide District website links for rebates.	District website, e-mail, bill inserts, social media
2 **Water Supply Alert**	Update the District's water conservation pages, reinforcing continuing voluntary reduction in water use.	All methods from Stage 1 and the following: Public information booths Provide information to homeowners associations

Table 5-1 cont.

Stage	Procedures	Dissemination Method
3 **Water Supply Warning**	Continue vigorous public information reminding residential customers of the water budget reductions, associated rate schedules, and future restrictions if supply shortage continues. Provide technical information (according to customer class) with recommendations on how this reduction may be achieved. Initiate citizen information hotline Prepare educational brochures. Initiate targeted media placements: • issue regular news releases to the media • design public information insert	All methods from Stage 1 and 2 and the following: Local newspapers, local television, telephone
4 **Extreme Water Supply Warning**	Develop brochures for each customer class advising users of their respective mandatory water budget reductions, associated rate schedules, and future restrictions if supply shortage continues. Provide regular updates to groups known to represent the following stakeholder groups: elected officials, civic and business leaders, and farmers. Create hotline for reporting" offenders.”	All methods from Stage 1-3 and the following: Informational booths at local government, attendance at District’s Farm Management Bureau meetings
5 **Water Supply Emergency**	Create public service announcements for local news stations. Provide regular updates to individual stakeholders. Write article/column for local newspapers. Schedule regular television/radio appearances for District staff to emphasize the catastrophic nature of the water shortage; Provide reassurance on other actions the District is taking to reduce shortage.	All methods from Stage 1-4 and the following: Local television, local radio.

Local media outlets that the District may use, include the following:

Media Source	Media Type
City of Temecula Channel 3	Television
The Press Enterprise	Printed and Online Publication
The San Diego Union Tribune	Printed and Online Publication
The Patch	Online Publication
Valley News	Online Publication
Rancho Water	District Website

The District will engage in the following coordination efforts, as outlined in Appendix D of the EOP:

- Coordinate with neighboring agencies, including Western Water and EMWD, to discuss: outlining response activities, roles and responsibilities, and mutual aid procedures (e.g., how to request and offer assistance):
    - Conducting joint tabletop or full-scale exercises.
    - Obtaining resources and assistance, such as equipment, personnel, technical support, or water.
    - Establishing interconnections between systems and agreements with necessary approvals to activate this alternate water source. Equipment, pumping rates, demand for the water sources, and any impacts on water rights laws need to be considered and addressed in the design and operations.
    - Establishing communication protocols and equipment to reduce misunderstandings during the incident.
- Coordinate with other key response partners, such as Riverside County Emergency Management Department, to identify potential points of distribution for the delivery of an emergency water supply (e.g., bottled water) to the public, as well as who is responsible for distributing the water.
- Understand how the local and utility emergency operations center will be activated and what the District may be called on to do, as well as how local emergency responders and the local Emergency Operations Center can support the District during a response.
- Coordinate with other neighboring water systems to develop a water use plan, especially if the District is in an agricultural area, to ensure there will be an adequate water supply by managing drawdown rates with agricultural (e.g., irrigation, livestock watering), industrial, and public water supply needs.
- Coordinate water usage with neighboring irrigation districts that are supplied by the same aquifer.
- Coordinate with community leaders and high water-using organizations within the community to discuss potential drought and conservation measures.

The District will also communicate with customers, as outlined in Appendix D of the EOP:

- Communicate with critical customers, high water users, and agricultural customers to discuss seasonal demand, irrigation practices, and conservation measures.

- Review public information protocols with the Division of Drinking Water. These protocols should include developing water advisory messages (e.g., boil water, warnings that service disruptions are likely) and distributing them to customers using appropriate mechanisms, such as reverse 9-1-1.
- Develop outreach materials for the public (e.g., radio, social media, and bill inserts) that clearly describe conservation measures and activities.
- Consider establishing programs to encourage customers to conserve water year-round, such as rebate programs, distribution of home retrofit kits, and water conservation classes.

Section 6: Compliance and Enforcement

In times of drought, a call for voluntary conservation may not bring about sufficient reduction in water use, particularly in times of extreme shortage when the water shortage level exceeds 20 percent. In such cases, the District will implement mandatory prohibitions and restrictions, together with the water budget reductions, for all customer classes, as shown in Table 4-2. The District's enforcement program is supplemented by a number of measures, which help it identify violators and assist customers in detecting and fixing leaks on their properties.

Sections of CWC Chapter 3, commencing with Section 350 of Division 1, provide the authority for the governing body of a water agency to declare a water shortage and to adopt and enforce water conservation restrictions. (CWC §§ 350-359, 375-378.0.).

6.1 Water Waste Patrols

Water waste patrols have been found to be an effective low-technology approach to easily observe landscape irrigation runoff when it occurs on residential front lawns, business, and public landscapes. The District has no formal dedicated water waste patrols, but Operations and Customer Service employees report violations observed as part of their daily routine work.

6.2 Citizen Reporting

All residents are encouraged to report water leakages and waste via the District's *Water Waste Report* website: www.ranchowater.com/431/Water-Waste-Report.

6.3 Technology-Enhanced Metering

The District utilizes Automatic Meter Read (AMR) technology for customer meters so that water meters can be remotely read and linked to a web portal. This provides access to timely and accurate information about customer water consumption. Using AMR information, the District is able to detect nonstop 24/7 water use and to notify customers that they may have a plumbing or irrigation leak. As part of Rancho Water's customer leak notification program, the District sends leak alerts to residential customers by e-mail, text message, phone call, and/or letter depending on the contact information on file in the billing system.

6.4 Fines

The District will notify customers who violate any of the restrictions or mandatory provisions in effect. Violations, which are related to the malfunction of water conveying hardware or devices, are subject to the following enforcement:

1. For the first violation, the District may use a door hanger to alert the customer of the violation and shall issue a written notice of fact of such violation to the customer. The customer shall then be allowed a period of 10 days following issuance of the written notice to correct the violation described therein, after which a second violation will be issued.

2. For a second violation, the District shall issue a written notice of fact of such violation to the customer. The customer shall then be allowed a period of 10 days following issuance of the written notice to correct the violation described therein before a third violation will be issued.

3. For a third violation, the District shall issue a written notice of fact of such violation to the customer when a second violation has not been corrected within a period of 10 days following issuance of the second violation notice. A fine of $50 shall be added to the customer's water bill upon issuance of the third violation. The customer shall be allowed a period of 5 days following issuance of the written notice to correct the third violation before a fourth violation will be issued.

4. For a fourth violation the District shall issue a written notice of fact of such violation to the customer when a third violation has not been corrected within a period of 5 days following issuance of the third violation notice. A fine in the amount of $100 shall be added to the customer's water bill upon issuance of the fourth violation. The customer shall be allowed 5 days following issuance of the written notice to correct the fourth violation before a fifth violation will be issued.

5. For a fifth violation, the District shall issue a written notice of fact of such violation to the customer when a fourth violation has not been corrected within a period of 5 days following issuance of the fourth violation notice. A fine in the amount of $200 shall be added to the customer's water bill upon issuance of the fifth notice. The customer shall be allowed 5 days following issuance of the written notice to correct the fifth violation before a sixth violation will be issued.

6. For a sixth violation, the District shall issue a written notice of fact of such violation to the customer when the fifth violation has not been corrected within a period of 5 days following issuance of the fifth violation notice. A fine of $500 per day shall be added to the customer’s water bill following the issuance of the sixth violation notices until the violation is corrected.

Violations that are not related to the malfunction of water conveying hardware or devices, but are related to actions taken by a water user, including, but not limited to, hosing down driveways, are subject to the same enforcement procedures outlined above with the exception that the expected timeframe for correction of the violation is immediate.

Customers shall pay all water bills and fines in accordance with the due dates stated on their bills. An Appeals Process is offered to customers that disagree with the fines assessed. If the appeal is upheld in favor of the customer, appropriate monies will be refunded. Details of the Appeals Process are provided below and contained within Appendix D of the District’s Water Conservation Policy.

6.5 Hearings and Appeals

Any customer may appeal the imposition of fines under this policy by filing a written request with the District Water Use Efficiency Department for an appeals hearing. The District must receive

the request within thirty days of the final notice. A request for a hearing shall set forth, in detail, all facts supporting the request.

The District's Water Use Efficiency Department shall, within fifteen days of receiving a request for an appeal hearing, provide written notice to the customer of the hearing date, time, and place. The hearing date shall not be more than thirty days from the mailing of such notice by certified mail, unless a later date is agreed to by the customer.

At the hearing, a Water Use Efficiency Department representative will represent the District. The customer will have the opportunity to present information supporting their position concerning the required irrigation evaluation or penalty charges. After the hearing, the Water Use Efficiency Department shall deliver a written report to the General Manager setting forth findings of fact, conclusions, and a recommendation on whether to uphold, modify, or reverse the original fines. Upon receipt of the written report, the General Manager shall issue a decision within fifteen calendar days of the hearing. The written decision of the General Manager shall be sent to the customer by certified mail. The General Manager's decision shall be final on the 16th day after it is mailed, unless a request for a hearing is filed with the Board no later than 5 p.m. on the 15th day following such mailing.

Any customer may appeal a decision made by the General Manager, prior to the date that the General Manager's order becomes final, by filing a written request for a hearing with the Board. The request for the Board hearing shall set forth in detail all the issues in dispute and all facts supporting the request. No later than thirty days after receipt of the request for a hearing, the Board shall either set the matter for a hearing, or deny the request for the hearing. Whether to grant or deny a request for a hearing on an appeal to the General Manager's decision shall be within the sole discretion of the Board.

If required, a hearing shall be held by the Board within thirty days of the date the request for a hearing was granted, unless a later date is agreed to by the customer and the Board. The Board shall make a determination whether to uphold, modify, or reverse the General Manager's decision. The order of the Board shall be final upon its adoption. The written decision and order of the Board shall be sent to the customer by certified mail within fifteen days after the close of the hearing.

If the matter is not heard within the required time, due to actions or inactions of the customer, or the Board's decision to deny the request for the hearing, the General Manager's decision shall be final.

6.6 Volumetric Penalties

Volumetric Penalties may be imposed if customers exceed their water budgets during times of water shortage (local or import), or when MWD implements its Water Supply Allocation Plan. Such excessive water use is a violation of the water shortage stages of this WSCP and is subject to a Volumetric Penalty, which will be assessed based on the quantity of excessive water used.

6.6.1 Residential and Dedicated Landscape

For Water Shortage Stages 3, 4, and 5 of the WSCP, residential and landscape customers may have their water budgets reduced to coincide with available local and imported supply. For example, if MWD implements a reduction of any level, Rancho Water will determine the appropriate water budget reduction to be imposed, if any, based on the Water Shortage Stage declared. Based on the rate structure for residential and landscape customers, they may therefore be charged Tier 2 or Tier 3 rates sooner than before. If these customers exceed their water budgets and begin paying Tier 2 or Tier 3 rates, they may also have to pay Volumetric Penalties. The District's usage of the Volumetric Penalties collected may include, but is not limited to, the following: pay for additional administration of the WSCP; pay MWD for allocation surcharges assessed to the District; fund additional imported water or other water supplies necessary to purchase due to the shortage; implement additional demand management measures; fund water supply resiliency capital projects; replenish the Drought Cash Reserve for the District (see Section 7); and/or fund other actions the District deems appropriate.

6.6.2 CII and Agricultural Customers

For Water Shortage Stages 3, 4 and 5 of the WSCP, CII and agricultural customers may have their water budgets reduced to coincide with available local and imported supply. For example, if MWD implements a reduction of any level, Rancho Water will determine the appropriate water budget reduction to be imposed, if any, based on the Water Shortage Stage declared and Rancho Water's Annual Assessment. Based on the rate structure for CII and agricultural customers, they may therefore be charged Tier 2 rates sooner than before. If these customers exceed their water budgets and begin paying Tier 2 rates, they may also have to pay Volumetric Penalties. The District's usage of the Volumetric Penalties collected may include, but is not limited to, the following: pay for additional administration of the WSCP; pay MWD for allocation surcharges assessed to the District; fund additional imported water or other water supplies necessary to purchase because of the shortage; implement additional demand management measures; fund water supply resiliency capital projects; replenish the Drought Cash Reserve for the District (see Section 7); and/or fund other actions the District deems appropriate.

6.6.3 Variances

The District may, in writing, grant a temporary variance from any fines, Volumetric Penalties, or restrictions imposed by the WSCP, if it is determined that failure to grant such variance would cause an emergency condition adversely affecting health, sanitation, or fire protection for the public or the person requesting such variance, and under the following conditions, which are consistent with Section 5 of the District's Water Conservation Policy:

1. Compliance with the WSCP cannot be technically accomplished during the duration of a water supply shortage or other condition for which the WSCP Shortage Stage is in effect.
2. Alternative methods or technology used as part of a District-sanctioned trial or test study can be implemented which will achieve the same level of reduction in water use.
3. Doctor-approved health circumstances, illness, or injury will be considered on a case-by-case basis.

4. No variances will be issued, beginning in Shortage Stage 3b of the WSCP, for filling swimming pools, establishing or expanding a landscape area, leaks not repaired within 48 hours, and existing outdoor water budgets.
5. Variances will be considered for health and safety issues only in Shortage Stages 4 and 5.

A written variance request shall be accepted by the District and may be denied at the sole discretion of the District. All variances must be requested in writing at any time after the WSCP's staged implementation. The following information must be provided:

1. Name, contact phone number, service address, and customer account number of petitioner.
2. Purpose of water use (e.g., domestic, commercial, agriculture).
3. Specific provision(s) of the WSCP from which the petitioner is requesting relief.
4. Detailed statement as to how the provision of the WSCP adversely affects the petitioner or what damage or harm will occur.
5. Description of the relief requested.
6. Period of time for which the variance is sought.
7. Any alternative water use restrictions (e.g., indoor use) that the petitioner is taking or proposes to take to meet the intent of the WSCP.

Section 7: Financial Consequences of WSCP

Decreased sales are an anticipated consequence of implementing the WSCP. Water shortages may also impact construction activities. A reduction in construction activities will reduce new water service connection fees collected by Rancho Water. As consumption decreases, some expenditures are expected to increase. Staff costs for community education, enforcement of ordinances, monitoring and evaluation of water use, drought planning, and dealing with customer questions and complaints are expected to rise. A shift to alternative sources would change pumping, purchase, and treatment costs, since different water supplies incur different operational and distribution expenses.

Rancho Water regularly reviews and updates rates to make sure costs are equitably apportioned to customers and reflect the cost of operating, maintaining, and improving the water system. As documented in the Rancho Water *Annual Comprehensive Financial Report*, it is the intent of the Directors that the costs of providing water and wastewater services are financed primarily through user charges; hence fixed costs are largely recovered through fixed revenues and variable costs are recovered through variable revenues. This method better positions the District to maintain a stable and equitable rate structure during normal and abnormal weather conditions, as well as during periods of drought, all of which may result in material reductions in water sales.

For the fiscal year ending June 2025, approximately 31 percent of Rancho Water's revenue came from the fixed service charge. The commodity rate is a cost per unit consumed by the customer and is meant to recover Rancho Water's costs for providing water service and a portion of fixed costs. The commodity charge also sends the customer a price signal and rewards customers who conserve water. A decrease in consumption would impact revenue from the commodity charges as estimated in Table 7-1 below. The anticipated revenue shortfalls represent the worst-case scenario for revenue shortfalls anticipated for any stage (i.e., the District applies the highest reduction possible and receives full compliance from customers).

Table 7-1
Revenue Impacts of Reduced Water Demand

Assumed Demand Reduction	Annual Revenue Reduction ($ million)
10 percent	3.26
20 percent	6.53
30 percent	16.29
40 percent	22.69
50 percent	31.22

Assumes base water sales of $54 million based on water sale revenues FY24 and FY25.

Currently, the District has implemented a Cash Reserve Policy, which includes a Drought Reserve, to address risk. . The Drought Reserve takes into account changes in the District's water supply operational costs and the reduced revenues from lower water sales. This reserve will be used to minimize any potential impacts caused by the implementation of the District's WSCP. In addition to the Drought Reserve, Rancho Water may also collect Allocation Surcharges for those who exceed their water budget allocation. These penalties may pay MWD for allocation surcharges assessed to the District, fund additional water purchases needed due to the shortage, implement additional demand management measures, fund water supply resiliency projects, and replenish the Drought Cash Reserve.

Section 8: Monitoring and Reporting

Certain aspects of water conservation can be readily monitored and evaluated, such as metered water use and production quantities. Other aspects, such as public education, are more difficult to measure in terms of effectiveness. Additionally, weather patterns make it more difficult to compare one year's water demand and conservation results with another year's.

When severe shortages occur and some degree of mandatory reduction is required, a program's effectiveness can be judged directly by water billings. In these cases, targeted results must be met and even reluctant customers will, on the whole, meet the goals. Specific methods to evaluate the effectiveness of water conservation programs to be employed by Rancho Water are:

1. Monitoring of Metered Water Usage – This will determine how much has been used. Compiling statistics to track usage of customer groups to determine trends is currently being done through the water billing computer system. Meter readings and billings can be compared and analyzed to determine the effectiveness of conservation for each customer class.
2. Monitoring Production Quantities – In normal water supply conditions, production figures are recorded daily by Rancho Water's automated system. The Water Production Supervisor and the Production Lead monitor the accuracy of the monthly production totals. The totals are incorporated into the monthly water supply report to the State by Rancho Water.

To verify that conservation reduction goals are being met, production and metered usage reports will be evaluated during each stage of the conservation period. Water production figures will be compared to previous year's production figures for the same time period to ascertain if conservation goals are being reached. Results will be posted on the Rancho Water website.

Section 9: References

Alliance for Water Efficiency (AWE). 2020. Use and Effectiveness of Municipal Irrigation During Drought. January.

American Water Works Association (AWWA) Water Conservation Programs Manual, M52. Second Edition.

County of Riverside Emergency Management Department. 2023. Multi-Jurisdictional Local Hazard Mitigation Plan. April.

Metropolitan Water District of Southern California (MWD). 2021. Water Shortage Contingency Plan. June.

Rancho California Water District (RCWD). 2025. Annual Comprehensive Financial Report for the Fiscal Year Ended June 30, 2025. October.

_____. 2024. Customer Guide Rates and Charges. July.

_____. 2024. Rancho California Water District Cash Reserve Policy, Adopted by the Board of Directors June 13, 2024.

_____. 2021 Water Conservation Policy. June.

Appendix A. Board of Directors Adoption of the 2026 WSCP

Appendix B. DWR Submittal Tables

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment
Water Code Section 10635(b)(3)

2026		Total
Total Water Use	(AF)	64,857
Total Supplies	(AF)	76,842
Surplus/Shortfall w/o WSCP Action		11,985
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2027		**Total**
Total Water Use	(AF)	67,094
Total Supplies	(AF)	75,854
Surplus/Shortfall w/o WSCP Action		8,760
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2028		**Total**
Total Water Use	(AF)	69,407
Total Supplies	(AF)	74,865
Surplus/Shortfall w/o WSCP Action		5,458
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2029		**Total**
Total Water Use	(AF)	71,800
Total Supplies	(AF)	73,665
Surplus/Shortfall w/o WSCP Action		1,865
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2030		**Total**
Total Water Use	(AF)	76,513
Total Supplies	(AF)	76,591
Surplus/Shortfall w/o WSCP Action		78
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

NOTES:

Submittal Table 8-1: Cross-reference for Standard vs Supplier Shortage Levels Water Code Section 10632(a)(3)(B)			
☐	Check the box if the Supplier uses the Standard six levels of water shortage. Proceed to the next table.		
Standard Shortage Levels	**Percent Shortage Range**	**Suppliers Shortage Levels**	**Percent Shortage Range**
1	Up to 10%	3b	0-10
2	Up to 20%	4a, 4b	11 -20
3	Up to 30%	4c	21-30
4	Up to 40%	5a, 5b	31 to 40
5	Up to 50%	5c	41 to 50
6	>50%	6	greater than 50
NOTES:			

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
Add additional rows as needed					
1	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
1	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
1	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
1	Provide Rebates for Turf Replacement	Percentage	1,063	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 20% uptake at this stage of water shortage	No
1	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50%	No
1	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	No
1	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		No
2	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
2	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
2	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
2	Provide Rebates for Turf Replacement	Percentage	1,063	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 20% uptake at this stage of water shortage	No
2	Provide Rebates for Landscape Irrigation Efficiency	Percentage	532	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 10% at this stage	No
2	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	No

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
2	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
2	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		No
3a	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
3a	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
3a	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
3a	Provide Rebates for Turf Replacement	Percentage	1,063	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 20% uptake at this stage of water shortage	No
3a	Provide Rebates for Landscape Irrigation Efficiency	Percentage	532	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 10% uptake at this stage	No
3a	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	No
3a	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
3a	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		No
3b	Implement or Modify Drought Rate Structure or Surcharge	Percentage	1,063	Suspend rolling budgets; no variances for filling swimming pools; residential and landscape Tier 3 budgets decreased up to 50%. Agricultural, CII and agricultural/residential Tier 2 are decreased by up to 50%. Assumes 100 % compliance	Yes
3b	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
3b	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
3b	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
3b	Provide Rebates for Turf Replacement	Percentage	1,595	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 30% uptake at this stage of water shortage	No
3b	Provide Rebates for Landscape Irrigation Efficiency	Percentage	532	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 10%	No
3b	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	Yes
3b	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
3b	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
3b	Other - Require automatic shut of hoses	Percentage	0		Yes

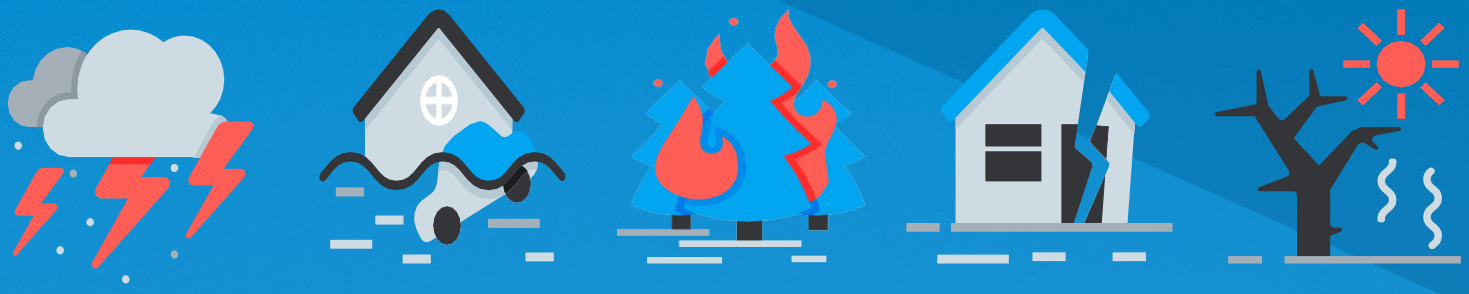
Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
3b	CII - Restaurants may only serve water upon request	Percentage	0		Yes
3b	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
3c	Implement or Modify Drought Rate Structure or Surcharge	Percentage	2,658	Residential and landscape Tier 3 budgets decreased up to 100%. Agricultural, CII and agricultural/residential Tier 2 are decreased by up to 100%. Assumes 100% compliance	Yes
3c	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
3c	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
3c	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
3c	Provide Rebates for Turf Replacement	Percentage	1,595	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 30% uptake at this stage of water shortage	No
3c	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No
3c	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	Yes
3c	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
3c	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
3c	Other - Require automatic shut of hoses	Percentage	0		Yes
3c	CII - Restaurants may only serve water upon request	Percentage	0		Yes
3c	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
4a	Implement or Modify Drought Rate Structure or Surcharge	Percentage	11,165	Residential Tier 2 budgets are decreased by up to 49%; Landscape budgets are completely eliminated and CIII, agricultural and agricultural/residential Tier 1 budgets are decreased by up to 10%. Assumes 100% compliance	Yes
4a	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
4a	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
4a	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
4a	Provide Rebates for Turf Replacement	Percentage	1,595	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 30% uptake at this stage of water shortage	No
4a	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
4a	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	Yes
4a	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
4a	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
4a	Other - Require automatic shut of hoses	Percentage	0		Yes
4a	CII - Restaurants may only serve water upon request	Percentage	0		Yes
4a	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
4a	Other - Prohibit use of potable water for construction and dust control	Percentage	0	No new POTABLE hydrant construction or tempor	Yes
4a	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety, unless water demand is offset to a net zero increase.	Yes
4a	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
4b, 4c	Implement or Modify Drought Rate Structure or Surcharge	Percentage	16,482	Residential Tier 2 budgets are decreased by up to 100%; Landscape budgets are completely eliminated and CIII, agricultural and agricultural/residential Tier 1 budgets are decreased by up to 45%. Assumes only 60% compliance at this stage	Yes
4b, 4c	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
4b, 4c	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
4b, 4c	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 50% uptake	No
4b, 4c	Provide Rebates for Turf Replacement	Percentage	2,658	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 50% uptake at this stage of water shortage	No
4b, 4c	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No
4b, 4c	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	No water for decorative fountains allowed, even if it has a re-circulating system	Yes
4b, 4c	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
4b, 4c	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
4b, 4c	Other - Require automatic shut of hoses	Percentage	0		Yes
4b, 4c	CII - Restaurants may only serve water upon request	Percentage	0		Yes

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
4b, 4c	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
4b, 4c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
4b, 4c	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety, unless water demand is offset to a net zero increase.	Yes
4b, 4c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5a, 5b	Implement or Modify Drought Rate Structure or Surcharge	Percentage	17,545	Residential Tier 1 budgets are decreased up to 30%; agricultural and agricultural/residential Tier 1 budgets are decreased by up to 60%. Assumes 50% compliance	Yes
5a, 5b	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
5a, 5b	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
5a, 5b	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 50% uptake	No
5a, 5b	Provide Rebates for Turf Replacement	Percentage	2,658	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 50% uptake at this stage of water shortage	No
5a, 5b	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No
5a, 5b	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	No water for decorative fountains allowed, even if it has a re-circulating system	Yes
5a, 5b	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
5a, 5b	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
5a, 5b	Other - Require automatic shut of hoses	Percentage	0		Yes
5a, 5b	CII - Restaurants may only serve water upon request	Percentage	0		Yes
5a, 5b	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
5a, 5b	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5a, 5b	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety.	Yes
5a, 5b	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5a, 5b	Other water feature or swimming pool restriction	Percentage	0	Water for refilling pool and spa is prohibited	Yes

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
5c	Implement or Modify Drought Rate Structure or Surcharge	Percentage	19,672	Residential Tier 1 budgets are decreased by 50%; agricultural and agricultural/residential Tier 1 budgets are decreased by up to 70%. Assumes 50% compliance	Yes
5c	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
5c	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
5c	Offer Water Use Surveys	Percentage	2,127	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 80% uptake	No
5c	Provide Rebates for Turf Replacement	Percentage	4,253	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 80% uptake at this stage of water shortage	No
5c	Provide Rebates for Landscape Irrigation Efficiency	Percentage	2,127	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of80% at this stage	No
5c	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	No water for decorative fountains allowed, even if it has a re-circulating system	Yes
5c	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
5c	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
5c	Other - Require automatic shut of hoses	Percentage	0		Yes
5c	CII - Restaurants may only serve water upon request	Percentage	0		Yes
5c	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
5c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5c	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety.	Yes
5c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5c	Other water feature or swimming pool restriction	Percentage	0	Water for refilling pool and spa is prohibited	Yes
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

Appendix C. Rancho California Water District Local Hazard Mitigation Plan 2023-2027



Rancho California Water District

Local Hazard Mitigation Plan

2023-2027

Rancho Water

WORKING FOR OUR COMMUNITY

CONTACT INFORMATION

Special District

Rancho California Water District
42135 Winchester Road
Temecula, CA 92590

Direct Contact:	Kristian Alfelor
Title:	Safety and Risk Officer
Office	951-296-6948
Fax:	951-296-6863
Email:	alfelork@ranchowater.com

PLAN ADOPTION/RESOLUTION

The Rancho California Water District (Rancho Water/District) will submit plans to the Riverside County Emergency Management Department which will forward to the California Governor's Office of Emergency Services (CAL-OES) for review prior to being submitted to the Federal Emergency Management Agency (FEMA). In addition, the District will wait to receive an "Approval Pending Adoption" letter from FEMA before taking the plan to local governing bodies for adoption. Upon approval, Rancho Water will insert the signed resolution.

EXECUTIVE SUMMARY

The purpose of this local hazard mitigation plan (LHMP) is to identify the County of Riverside's (County) hazards, review and assess past disaster occurrences, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term risks to people and property from natural and man-made hazards.

The plan was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 to achieve eligibility and potentially secure mitigation funding through Federal Emergency Management Agency (FEMA) Flood Mitigation Assistance, Pre-Disaster Mitigation, and Hazard Mitigation Grant Programs.

Rancho Water's continual efforts to maintain a disaster-mitigation strategy are ongoing. The District's goal is to develop and maintain an all-inclusive plan to include all jurisdictions, special districts, businesses, and community organizations to promote consistency, continuity, and unification.

The District's planning process followed a methodology presented by FEMA and CAL-OES that included conducting meetings with the Operational Area Planning Committee (OAPC), coordinated by Riverside County Emergency Management Department (EMD), comprised of participating federal, state, and local jurisdictional agencies, special districts, school districts, non-profit communities, universities, businesses, tribes, and the general public.

The plan identifies vulnerabilities, provides recommendations for prioritized mitigation actions, evaluates resources and identifies mitigation shortcomings, and provides future mitigation planning and maintenance of the existing plan.

The plan will be implemented upon FEMA approval.

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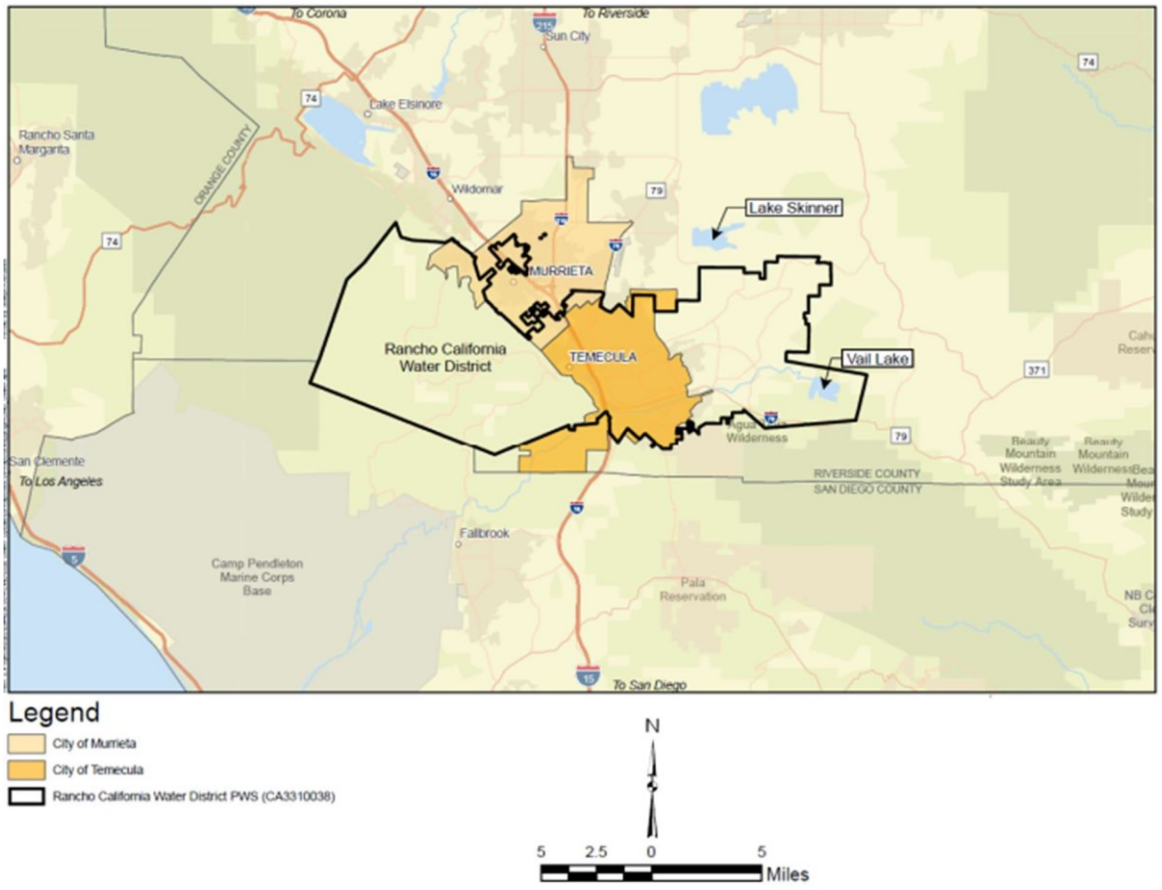
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SECTION 1.0 - COMMUNITY PROFILE

1.1 SPECIAL DISTRICT MAP



1.2 GEOGRAPHY AND CLIMATE DESCRIPTION

Rancho Water serves the area known as Temecula/Rancho California, which includes the city of Temecula, portions of the city of Murrieta, and unincorporated areas of southwest Riverside County. The jurisdictional area served is approximately 156 square miles and is 42 miles south of the county seat, the city of Riverside. The jurisdiction sits directly adjacent to San Diego County on its eastern and southern boundaries, and is bordered by the city of Murrieta on the northwest and the Pechanga Indian Reservation on the south, with unincorporated areas of Riverside County on all of its other borders. It is served by the Interstate 15 (Temecula Valley Freeway), Interstate 215, and California State Route 79 (Winchester Road to the northeast and Temecula Parkway to the southeast). The closest rail-line/railroad service is located 23 miles away in the city of Perris.

The regional climate is Mediterranean with hot, arid summers and mostly clear winters that are long, cool, and partly cloudy. The temperature typically varies from 41 to 89 degrees Fahrenheit and is rarely below 34 degrees Fahrenheit or above 96 degrees Fahrenheit. The area's temperature is influenced by prevailing onshore winds from the Pacific Ocean and the rain shadow effect from the Santa Rosa Mountains. The "Santa Ana winds" can cause periods of extremely hot weather with dry winds. Winter daytime temperatures are mild, averaging in the mid-60-degree range. Total annual precipitation for the region averages 12.01 inches per year. During very wet years, rainfall can exceed 25 inches, while during very dry years rainfall can be less than 1 inch. Rainfall is more prevalent during the months of November through April.

1.3 HISTORY

The District provides water and reclamation services to the city of Temecula, portions of the city of Murrieta, and unincorporated areas of Riverside County. The mission of Rancho Water is to deliver reliable, high-quality water and reclamation services to its customers and communities in a prudent and sustainable manner.

The Temecula area was developed in the 1880s along the California Southern Railroad. Temecula served as an important shipping center for cut granite from nearby quarries. In the early 1900s, 87,000 acres of land within the District were acquired by the Vail Company. These lands were developed by the Vail Company into a very successful cattle ranch. The Vail Ranch used the higher mesa lands for grazing and growing dry farm crops, while the Pauba Valley irrigated crops such as alfalfa, melons, and potatoes. Initially, irrigation was achieved through direct diversion of water from Temecula Creek. Later, artesian and other wells were drilled in the valley. In 1948, Vail Dam was constructed on Temecula Creek in Butterfield Canyon. Vail Lake's storage capacity provided additional irrigation water for the Pauba Valley.

In 1964, Rancho California was created when the Vail Ranch was purchased by the land development partnership of Kaiser Corporations and Macco Realty Company. The partnership implemented a master development plan with a goal to create a balanced residential, commercial, and industrial community while maintaining its rural qualities of open spaces and agricultural production lands. The developers were instrumental in forming two water districts to provide a continued and reliable water supply.

The District was formed in 1965 over the easterly 41,000 acres, and the Santa Rosa Ranches Water District (SRRWD) was formed in 1968 over the westerly 46,000 acres. Each district was organized as a California Water District, which entitled property owners one vote for each $100 of assessed land valuation in electing a Board of Directors. To provide a supplemental imported water supply, the District was concurrently annexed to Eastern Municipal Water District (EMWD) and Metropolitan Water District of Southern California (MWD) in 1966. EMWD was also granted powers to collect, treat, and dispose of wastewater within the District. Similarly, the SRRWD was concurrently annexed into Western Municipal Water District (WMWD) of Riverside County and MWD. SRRWD, however, reserved its wastewater service powers.

MWD serves as a regional wholesaler of imported water over a wide area of Southern California, from Los Angeles to San Diego. EMWD and WMWD are member agencies of MWD and purchase imported water from MWD to retail to smaller local jurisdictions. Historically, the District has relied on local groundwater supplemented with MWD imported water to meet domestic and agricultural demands.

In 1977, the two districts, Rancho Water and SRRWD, were consolidated as a single district known as the Rancho California Water District. The original Rancho Water had approved a general obligation bond issue of 55 million dollars in 1966, and SRRWD had similarly approved 63 million dollars in bonds in 1968. Since these bond issues are still applicable over the original lands within each district, separate divisions known as the Rancho Division and the Santa Rosa Division have been maintained for accounting purposes.

Treated imported water (potable) is received from MWD's storage and filtration facility at Lake Skinner directly into the District's distribution system through 4 turnouts. The District operates 31 potable water pump stations and 48 active potable groundwater production wells, and maintains 39 potable water storage reservoirs with a capacity of 149.7 million gallons (MG). The potable water system includes over 950 miles of water pipelines that convey water from its source to District customers.

In addition, the District owns an open (surface) reservoir, Vail Lake, with a storage capacity of approximately 45,000 acre-feet (AF). Vail Lake is used to help recharge the downstream Temecula Valley groundwater basin, using natural runoff. Raw water is delivered to the District from MWD's Pipeline No. 5 through turnout WR-34, and Pipeline No. 6 through turnout EM-21. Raw water from EM-21 is conveyed through the Pauba Valley Transmission Main in De Portola Road to the District's Valle De Los Caballos (VDC) Recharge and Recovery Facility. This system consists of 26 wells (included in the 48 active wells) and the Upper VDC and Lower VDC Percolation Basins. The raw water system is depicted in Figure 1-2.

The District operates 6 recycled water pump stations and 3 active recycled groundwater production wells, and maintains 4 recycled water storage reservoirs with a combined capacity of 7.5 MG. The District owns 5 recycled water seasonal storage ponds with a total of 1,495 acre-feet per year (AFY) of storage. The recycled water system includes 58.9 miles of water pipelines that convey recycled water primarily for irrigation purposes. The recycled water supply is from tertiary facilities at the Santa Rosa Water Reclamation Facility (SRWRF) and the seasonal storage ponds constructed adjacent to the reclamation facility. Recycled water is also received from the Temecula Valley Regional Water Reclamation Facility (TVRWRF) under agreement with EMWD. The recycled water system is depicted in Figure 1-3.

The District is a "Special District" organized and operated pursuant to the California Water Code, and is governed by a 7-member Board of Directors that is elected by the voters of the region. The District also provides wastewater collection in the Santa Rosa Division. Wastewater facilities include 52 miles of gravity mains, 2 lift stations and 2.5 miles of force mains. This flow is conveyed to a collection system that is owned and operated by the Santa Rosa Regional Resources Authority (SRRRA). The SRRRA is a Joint Powers Authority with 3 member agencies: the District, Elsinore Valley Municipal Water District (EVMWD), and WMWD. The SRRRA also provides treatment at the SRWRF, a 5-million gallon per day (MGD) sequencing batch reactor treatment facility with conventional advanced wastewater treatment.

Over the past 30 years, a number of areas have been annexed into Rancho Water within either division, bringing the total gross water service area of the District to 99,195 acres. In 1990, the District's total gross water service area was 98,038 acres, which grew to 98,907 acres by 2000. In 2010, the District's total gross water service area was identical to today's current size.

1.4 ECONOMIC DESCRIPTION

The Rancho Water service area is primarily a residential community with horse ranches, avocado farms, and wineries. With its highly educated workforce and close proximity to San Diego's technology cluster, the twin cities of Temecula and Murrieta are increasingly tied economically to San Diego's diverse economy. The two largest Temecula Valley employers, according to the California Employment Development Department, are: Abbott Vascular (Temecula) and the Southwest Healthcare System (Murrieta).

1.5 POPULATION AND HOUSING

The cities of Temecula and Murrieta have become desirable places to live due to their proximity to major cities in Southern California and a lower relative cost of living. Both cities have experienced significant population growth and have a need for reliable water supplies. The District includes approximately 9,100 irrigated acres of agriculture and ranch lands, primarily vineyards, avocado, and citrus trees. The Temecula Valley is a premiere wine grape growing area in California, which, coupled with other high-value crops, requires a consistent irrigation supply. Major agricultural acreage is concentrated in the southwestern and eastern portions of the District and the service area is largely developed. Additionally, the anticipated rate of population and housing growth as it relates to the increased vulnerability of the community are minimal.

Temecula Population Summary

Population	
Population Estimates, July 1 2021, (V2021)	110,846
Population estimates base, April 1, 2020, (V2021)	110,130
Population, percent change - April 1, 2020 (estimates base) to July 1, 2021, (V2021)	0.70 percent
Population, Census, April 1, 2020	110,003
Population, Census, April 1, 2010	100,097
Housing	
Owner-occupied housing unit rate, 2016-2020	65.90 percent
Median value of owner-occupied housing units, 2016-2020	$464,900
Median selected monthly owner costs -with a mortgage, 2016-2020	$2,420
Median selected monthly owner costs -without a mortgage, 2016-2020	$643
Median gross rent, 2016-2020	$1,935
Economy	
In civilian labor force, total, percent of population age 16 years+, 2016-2020	64.20 percent
In civilian labor force, female, percent of population age 16 years+, 2016-2020	57.30 percent
Total accommodation and food services sales, 2017 ($1,000)(c)	455,537
Total health care and social assistance receipts/revenue, 2017 ($1,000)(c)	531,358
Total transportation and warehousing receipts/revenue, 2017 ($1,000)(c)	103,847
Total retail sales, 2017 ($1,000)(c)	3,163,971
Total retail sales per capita, 2017(c)	$28,059

Murrieta Populations Summary

Population	
Population Estimates, July 1 2021, (V2021)	112,991
Population estimates base, April 1, 2020, (V2021)	111,050
Population, percent change - April 1, 2020 (estimates base) to July 1, 2021, (V2021)	1.70 percent
Population, Census, April 1, 2020	110,949
Population, Census, April 1, 2010	103,466
Housing	
Owner-occupied housing unit rate, 2016-2020	66.10 percent
Median value of owner-occupied housing units, 2016-2020	$435,700
Median selected monthly owner costs -with a mortgage, 2016-2020	$2,411
Median selected monthly owner costs -without a mortgage, 2016-2020	$672
Median gross rent, 2016-2020	$1,859
Economy	
In civilian labor force, total, percent of population age 16 years+, 2016-2020	62.50 percent
In civilian labor force, female, percent of population age 16 years+, 2016-2020	55.20 percent
Total accommodation and food services sales, 2017 ($1,000)(c)	212,911
Total health care and social assistance receipts/revenue, 2017 ($1,000)(c)	735,257
Total transportation and warehousing receipts/revenue, 2017 ($1,000)(c)	43,185
Total retail sales, 2017 ($1,000)(c)	1,666,475
Total retail sales per capita, 2017(c)	$14,738

1.6 RANCHO WATER DEVELOPMENT TRENDS AND LAND USE

The residential growth within the District's service area will continue to expand as there are many people attracted to the cities of Temecula and Murrieta, and the unincorporated County areas that surround them. Steady growth has occurred within the service area boundaries since the adopted 2017 LHMP. Because much of the city of Temecula, which makes up a large portion of the District's service area, has already been developed, no major growth is anticipated over the next five (5) years. Therefore, the impacts of additional development and land as it relates to the vulnerability of the community are minimal.

In August 2014, Rancho Water acquired approximately 7,700 acres of the Vail and Sundance Ranch properties surrounding Vail Lake, significantly increasing the District's land holdings. Rancho Water's land holdings total 8,444 acres when Vail Lake and other District property are included. The use of the Vail Property is to protect and enhance the District's water resources, to preserve the biological resources through habitat conservation and restoration, and to provide a variety of appropriate land- and water-based recreational opportunities and is not growth inducing.

SECTION 2.0 - PLANNING PROCESS

2.1 LOCAL PLANNING PROCESS

Rancho Water has developed a LHMP team, with representatives from the District's safety/risk, engineering, operations, finance, public information, water resources planning, and administration departments that will meet as required. The meetings will be focused on specific questions or issues during the LHMP update process. The LHMP team met on 09/1/2022 and 11/15/2022. All members were present on both days.

LHMP Team Members:

Danielle Coats, Senior Government and Public Affairs Manager
Eileen Dienzo, Director of Human Resources
Jake Wiley, Assistant General Manager
Justin Weeks, Field Services Manager
Jason Martin, Director of Administration
Jeff Kirshberg, Director of Planning
Kimberly Wall, Public Information Officer II
Tom Marcoux, Safety and Risk Officer

2.2 PARTICIPATION IN REGIONAL (OA) PLANNING PROCESS

On May 18, 2022, Rancho Water began working with Riverside County Emergency Management Department (EMD), Preparedness and Planning Division on the update of the District's 2017 LHMP. Throughout this process, the primary means of communication has been email traffic and phone calls between Rancho Water and EMD. The following actions have been taken:

- 5/23/2022: Rancho Water submitted a letter of commitment to EMD to confirm that the District agrees to participate in the Riverside County EMD's Multi-Jurisdictional Hazard Mitigation Planning.

- 6/15/2022: Rancho Water attended Riverside County EMD's Multi-Jurisdictional LHMP kickoff meeting via Microsoft teams. At the kickoff meeting, EMD gave an overview of the update process, important review items, and resource materials for completing the LHMP update.

- 9/1/2022: Rancho Water held its LHMP planning meeting with members from its LHMP Planning Team. An overview was given of planning process, the requirements of the LHMP, and outreach efforts. As a planning team, hazards to profile were evaluated as a team and selected based on their applicability to Rancho Water.

- 9/2/2022: The LHMP Planning Team completed a survey to prioritize hazards based on their probability, location, primary impact, secondary impact.

- 9/14/2022: Rancho Water's Safety Officer met with the Riverside County Southwest Emergency Managers Group in Lake Elsinore to discuss the District's LHMP update.

- 9/15/2022: The District's Safety Officer conducted a public presentation on the LHMP at the District's Planning and Administration Committee. No public comments were made.
- 9/27/2022: Rancho Water published a survey seeking public input on the update of the District's LHMP. Survey link was emailed to all District customers, posted on the District website, broadcasted on social media, and distributed at the Temecula Preparedness Fair on 11/19/2022.

- 11/15/2022: The District LHMP Planning Team met to discuss goals, actions, and prioritization and ranking of projects based off the profiled hazards.

2.3 RANCHO WATER DATES AVAILABLE FOR PUBLIC COMMENT

The District posted a notice of the Hazard Mitigation Planning process on its website and social media platforms to provide opportunity for public comment during the development of the LHMP and draft review; see screenshots below:



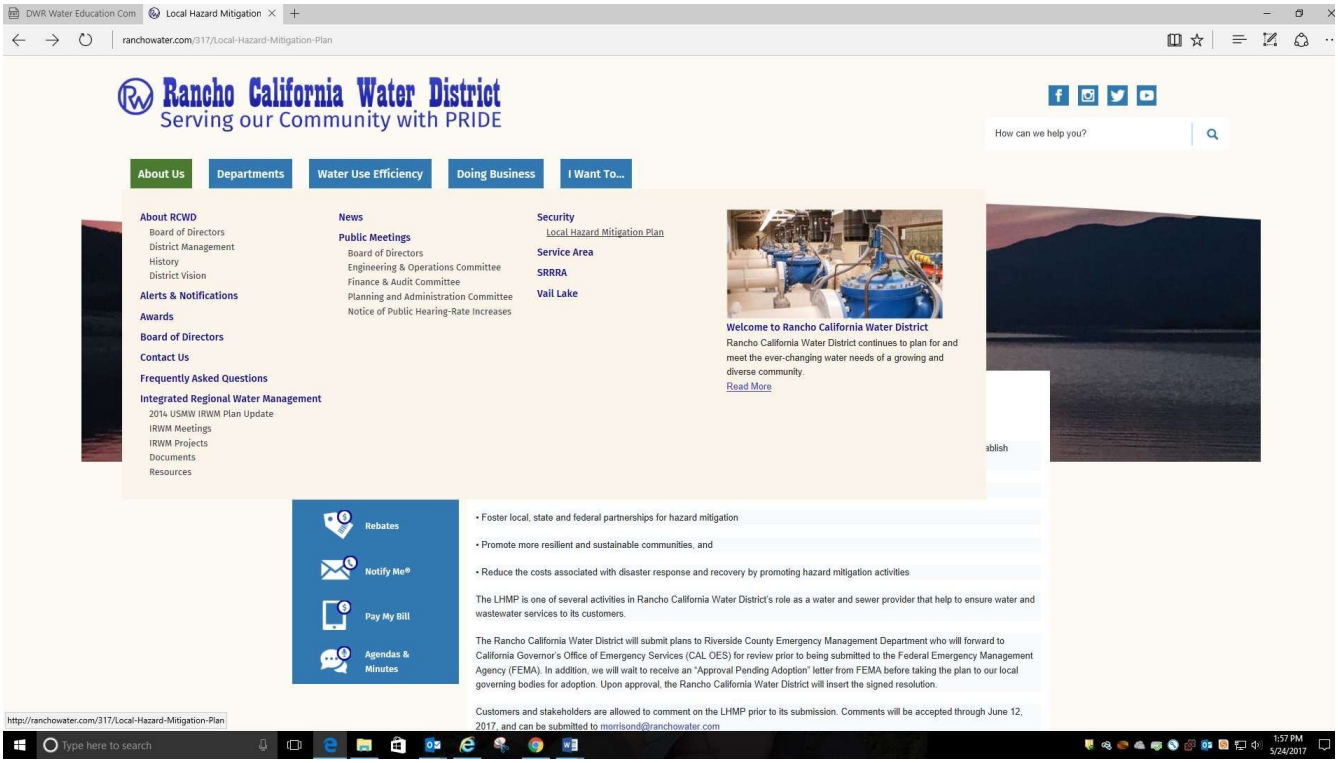
← **Tweet**

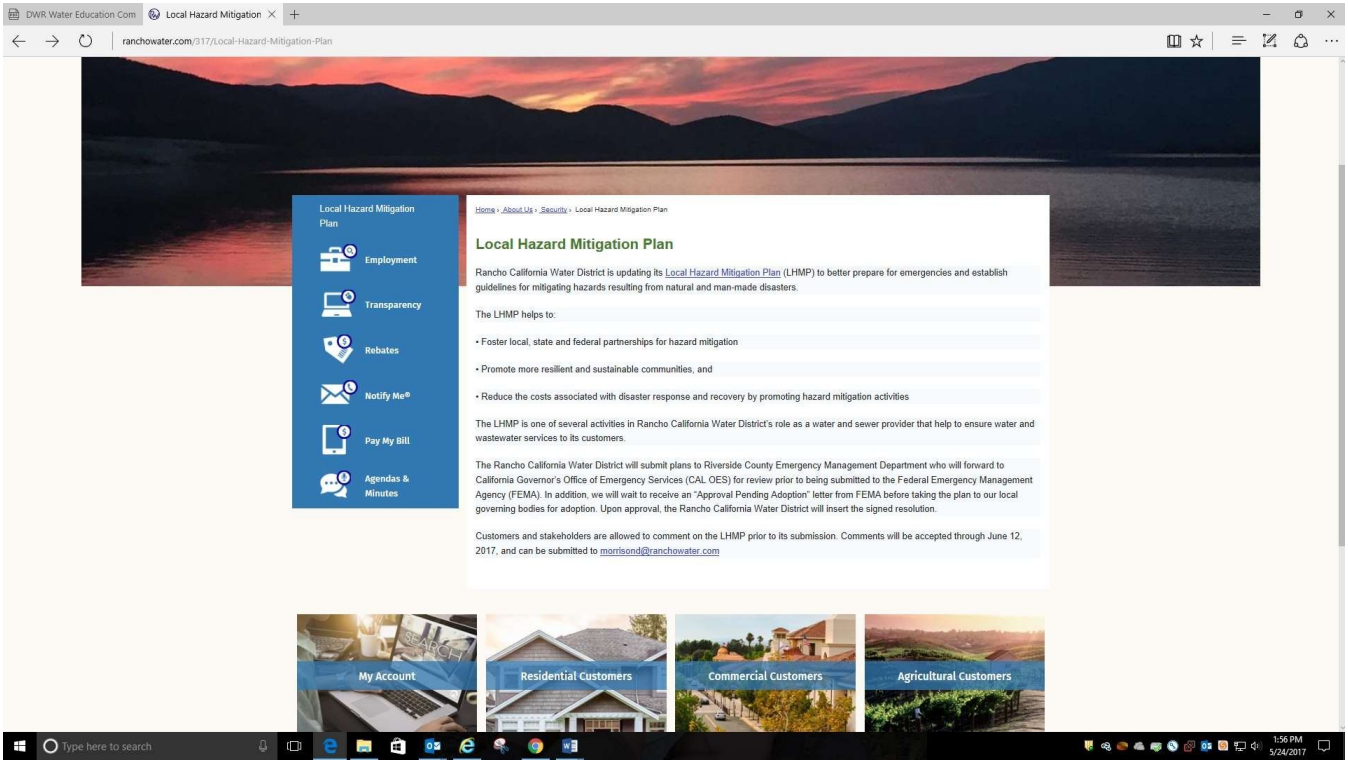
RanchoWater
@RanchoWater

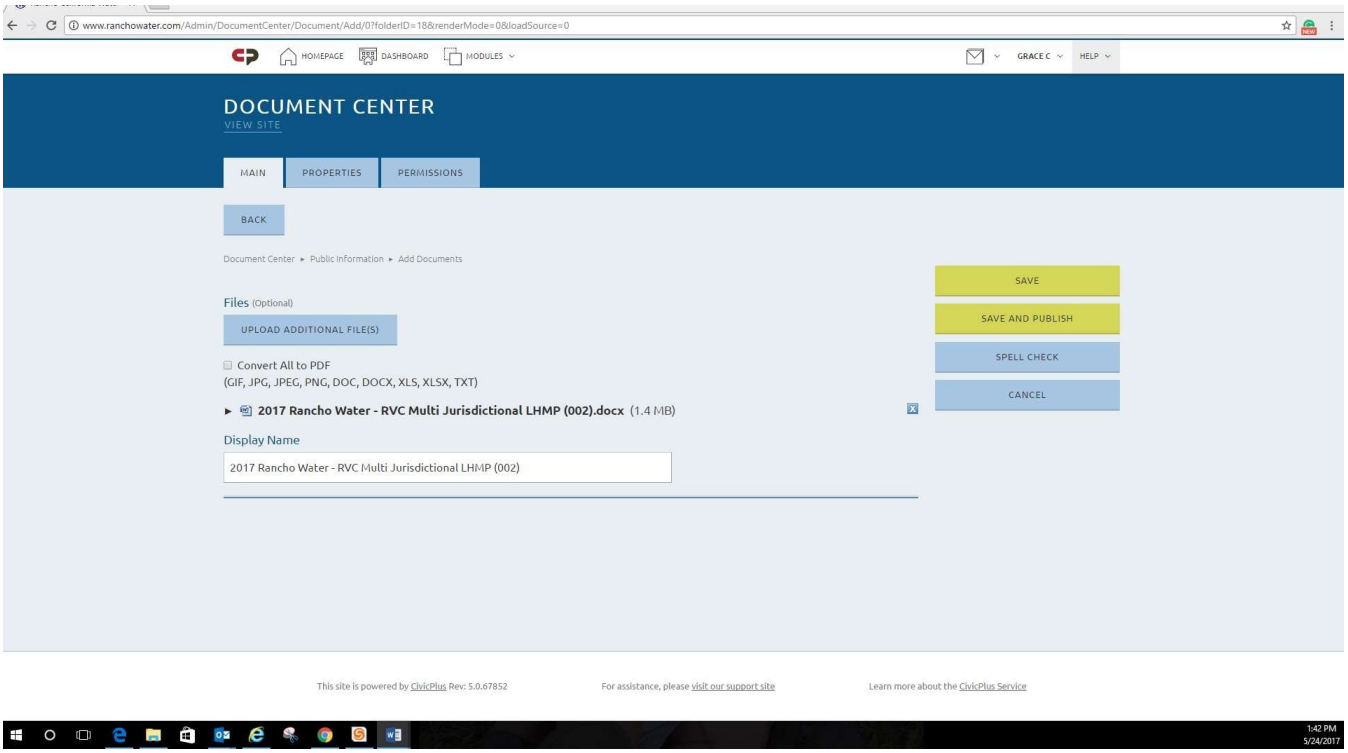
Today is International Day for Disaster Reduction. Help us honor the day by completing our quick survey about disaster mitigation. What's important to you? Drought? Wildfire? Earthquakes? Fill out the survey here: surveymonkey.com/r/RWHazardMit



8:00 AM · Oct 13, 2022 · Twitter Web App







In addition, Rancho Water held a public meeting on January 19, 2023 to review the Draft plan with the District's Planning and Administration Committee and the public. Rancho water received no public comments during the meeting.

2.4 PLANS ADOPTED BY RESOLUTION

The District's Board of Directors adopted, by Resolution, the District's 2017 Multi-Jurisdictional LHMP to meet the requirements of the Disaster Mitigation Act of 2000. Upon approval by FEMA, the 2023 LHMP will be presented to the Rancho Water Board of Directors in a public meeting for adoption via an official Resolution.

SECTION 3.0 – MITIGATION ACTIONS/UPDATES

3.1 UPDATES FROM 2017 PLAN

The 2017 LHMP information regarding hazards analyzed in the plan has been reviewed. There were five new hazards identified: extreme weather, landslide/mudslide, geological hazards, public health emergency, and wildland fire. New hazards were added in response to recent events or new discovery. Agricultural hazard was removed due to the inapplicability to District assets.

3.2 DISTRICT SERVICE AREA HAZARDS

HAZARD	PROBABILITY	SEVERITY	HEALTHCARE	EMS	BEHAVIORAL / MENTAL HEALTH	RESPONDER AGENCIES	COMMUNITY AGENCIES	*RISK SCORE*
	Improbable: 0 Remote: 1 Occasional: 2 Probable: 3 Frequent: 4	NA: 0 Negligible: 1 Marginal: 2 Critical: 3 Catastrophic: 4	NA: 0 Negligible: 1 Marginal: 2 Critical: 3 Catastrophic: 4	NA: 0 Negligible: 1 Marginal: 2 Critical: 3 Catastrophic: 4	NA: 0 Negligible: 1 Marginal: 2 Critical: 3 Catastrophic: 4	NA: 0 Low: 1 Moderate: 2 High: 3 Extreme: 4	NA: 0 Low: 1 Moderate: 2 High: 3 Extreme: 4	
Aqueduct	2	3	2	2	2	2	3	**0.38**
Drought	3	3	2	2	2	2	2	**1.13**
Earthquake	2	4	4	4	3	2	2	**3.50**
Extreme Weather	2	3	2	2	2	2	2	**0.75**
Flood	3	3	2	3	2	2	3	**1.13**
Insect Infestation	3	2	2	1	1	2	2	**0.00**
Landslide	3	3	1	1	1	2	2	**-0.56**
Tornado	1	2	2	2	2	2	2	**0.25**
Wildland Fire	4	3	3	3	3	3	3	**2.25**
Civil Disorder	2	3	3	3	1	4	0	**1.13**
Communications Failure	2	3	3	3	3	3	3	**1.13**
Cyber Attack	4	2	3	2	2	3	1	**1.50**
Dam Failure	1	3	2	3	2	2	3	**0.38**
Electrical Failure	4	4	2	2	2	2	2	**2.00**
HazMat Incident	4	3	2	2	1	3	3	**-0.75**
Jail/Prison Event	1	2	1	1	1	4	0	**-0.13**
Nuclear/Radiological Incident	1	4	2	3	3	2	2	**1.00**
Pipeline Disruption	2	3	2	2	1	3	3	**-0.38**
Terrorist Event - MCI	1	3	3	3	4	3	1	**1.13**
Transportation Failure	2	3	2	2	1	2	2	**0.38**
Water Supply Disruption/Contamination	3	2	0	0	0	2	2	**-1.50**
Emergent Disease/Contamination	3	3	3	3	2	3	2	**1.69**
Pandemic Flu	2	4	4	4	4	3	2	**3.50**

3.2 BRIEF STATEMENT OF UNIQUE HAZARDS

Rancho Water has three dams near its service area: 1) Vail Lake and Vail Dam, located on Temecula Creek, in the Butterfield Valley, south of Oak Mountain, in the Santa Margarita River Watershed, approximately 15 miles (24 km) east of Temecula. Vail Lake and Vail Dam are owned and operated by the District; 2) The Skinner Clearwell Dam/Skinner Reservoir, also known as Lake Skinner, is a reservoir in western Riverside County, California, located at the foot of Bachelor Mountain in the Auld Valley, approximately 10 miles (15 km) northeast of Temecula; and 3) Diamond Valley Dam and Lake, located within the Domenigoni/Diamond Valleys, between the Domenigoni Mountains and Rawson Mountains, 4 miles (6.4 km) southwest of the city of Hemet. Both Lake Skinner and Diamond Valley Dam and Lake are owned and operated by MWD.

3.3 MITIGATION PROJECT UPDATES

Hazard	Mitigation	Description	Status
Earthquake	Vail Dam Seismic and Hydrologic Remediation	Vail dam to be replaced in order to satisfy DSOD safety requirements	New Vail Dam design at 90 percent
Drought	Groundwater Basin Management	Optimize groundwater basin management and utilize the District's Water Shortage Contingency Plan	Groundwater Basin Management on-going. Completed update of the water shortage contingency plan in 2021
Wildfire	Fire Resistant Vegetation	Adequately irrigate, install fire resistant vegetation, and establish fire break around facilities	Project currently in Progress with expected completion in 2024. Action is being carried over from previous LHMP.
Earthquake	Seismic Upgrades	Harden pump stations against potential earthquake movement	Action is being carried over from previous LHMP. Planning in progress
Earthquake	Reservoir Inlet/Outlet Seismic Retrofit	Retrofit District reservoir inlet/ outlet piping to protect against earthquakes	Action is being carried over from previous LHMP. Planning in progress
Earthquake	Corrosion Control Program	Continue developing a corrosion control program to improve the reliability and maintenance of pipelines and steel tank reservoirs	In progress, expect to have an implementation plan completed in 2024. Action is being carried over from previous LHMP.

SECTION 4.0 - HAZARD IDENTIFICATION AND RISK ASSESSMENT

4.1 HAZARD IDENTIFICATION

In order to determine the potential impacts of hazards to the people, economy, and built and natural environments of the community, the planning team began the risk assessment process through the identification of applicable hazards. Based on the FEMA Hazard Summary Worksheet, the planning team met to identify hazards to include, add, and exclude summarized below in table 4-1.

Table 4-1 Hazard Identification

Hazards & Profile	Included in LHMP	Discussion of Hazard's Inclusion or Exclusion
Avalanche	No	Not applicable to Rancho Water. Snowfall does not occur regularly within the service area
Dam Failure	Yes	Rancho Water owns and operates Vail Lake Dam.
Drought	Yes	
Earthquake	Yes	Multiple fault lines are located within or are adjacent to the District service area.
Erosion	No	Coastal erosion not applicable to Rancho Water. Erosion in designated flood channels addressed under flooding.
Expansive Soils	Yes	Expansive soils potentially widespread throughout the District service area.
Extreme Cold	No	Rancho Water does not consistently experience extreme freezing temperatures. Winter storms are addressed in severe weather.
Extreme Heat	Yes	Employees of the District are consistently exposed to high heat during summer months.
Extreme Rainfall	Yes	Rainfall events in the past have exposed and damaged Rancho Water infrastructure.
Flood	Yes	Multiple District assets are located within FEMA 100 and 500 year flood zones.

Hazards	Included in LHMP	Discussion or Exclusion
Hail	No	The service area does not frequently experience hailstorms
Human Caused-Cyber Attack	Yes	Water utilities have been experiencing increased cyber security attacks nationwide.
Human Caused-Hazardous Material Spill	Yes	Numerous hazardous materials suppliers and hazardous waste generators operate within the Rancho Water service area.
Human Caused-Supply Chain Failure	Yes	Shortages such as chlorine have recently threatened water utilities nationwide.
Human Caused-Terrorism	Yes	Acts of intentional contamination have occurred across the state against water utilities.
Hurricane	No	While Rancho Water could experience heavy rainfall in the wake of a dissipated hurricane or tropical storm, this hazard is not expected to occurred within the service area.
Landslide/ Mudslide	Yes	Portions of the District service area are susceptible to landslides. In addition, areas impacted by wildfires may become vulnerable to mudslides.
Lightening	No	No historically significant occurrences within the service area.
Public Health Emergency	Yes	At the time of the LHMP update, the state of California is under emergency orders in regards to COVID-19.
Sea Level Rise	No	No applicable to Rancho Water.
Severe Wind	Yes	High winds routinely shut down electrical grids within the District service area.
Severe Winter Weather	Yes	Rancho Water does not experience routine snowfall, but can experience severe winter weather in the form of extreme rainfall.

Hazards	Included in LHMP	Discussion or Exclusion
Storm Surge	No	Not applicable to Rancho Water.
Subsidence	Yes	While land subsidence has not been mapped in the District service area, most subsidence in California has resulted from excessive groundwater pumping.
Tornado	No	Rancho Water has experienced one documented tornado in the service area since 1950.
Tsunami	No	Not applicable to Rancho Water.
Wildfire	Yes	A large portion of the Distrit service area lies in moderate- very high fire severity zones.

4.2 CRITICAL FACILITIES AND INFRASTRUCTURES

Table 4-2

Critical Facilities Type	Number
Vail Dam/Lake	1
Wastewater Treatment Plant	1
Reservoirs (potable)	42
Reservoirs (non-potable)	17
Pump Stations (potable)	33
Pump Stations (non-potable)	7
Pressure Reducing Stations (potable)	15
Pressure Reducing Station (non-potable)	1
Lift Stations	3
Chloramination Facility	4
Production Wells	51
Monitoring Wells	77
Headquarters Facility	1
Facility Totals	253
Water/Sewer Lines - miles	1,044

4.3 HAZARD PROFILES

Drought

Description:

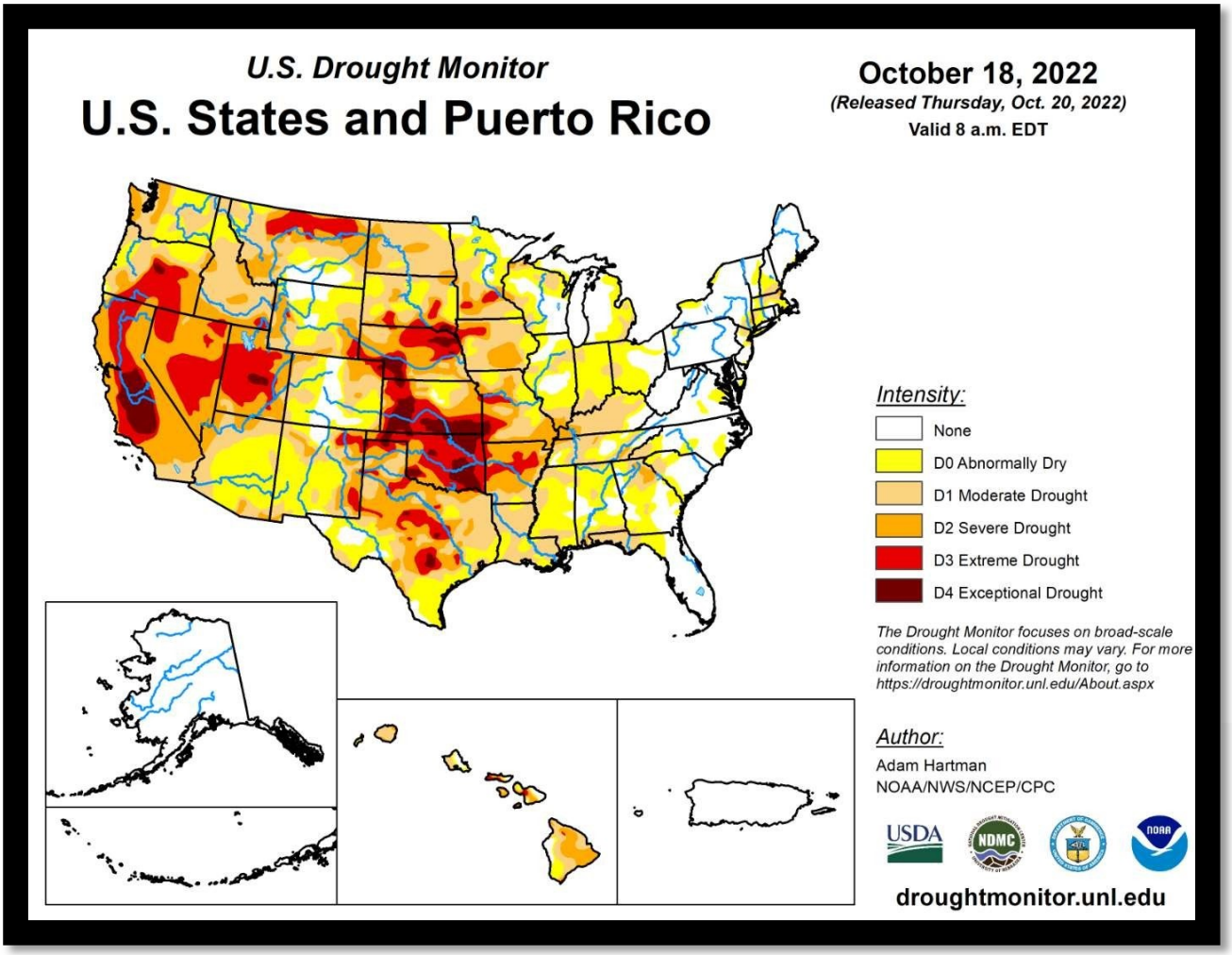
A drought is defined as a period of abnormally dry weather sufficiently long enough to cause a serious hydrological imbalance. Drought can result in significant operational impacts to water utilities, including a loss of water supply and poor source water quality.

Rancho Water's potable water supply sources include water imported through the MWD and local groundwater. Historically, imported water has supplied between 60 to 70 percent of the District's water supply, comprised of both treated and untreated water. The District artificially recharges the Pauba Valley Basin with untreated imported water for enhanced groundwater production. The annual supply capacity of the District's local groundwater sources is limited by the sustainable yield of the groundwater basin. Each year, staff and the District's consulting hydrogeologist jointly prepare an audit of groundwater resources at the conclusion of the water year (year ending September 30).

In the event that the availability of local and/or imported water supplies is constrained, the District's options include purchasing more imported water, if available, and/or implementing actions in accordance with its Water Shortage Contingency Plan.

Location/ Extent:

Impacts from a drought would typically be experienced service area wide. However, the severity or extent of a drought could regionally impact imported water sources differently than Rancho Water. Drought severity is described in the National Drought Mitigation Center's U.S. Drought Monitor Map.



In addition to loss of water supply and poor source water quality, drought can have significant secondary impacts. Drought can be a catalyst for unfavorable wildfire conditions through the creation of increased fuel sources through dry vegetation and increased tree mortality. Coupled with reduced water supply for firefighting, drought has the propensity to create larger, more severe wildfires throughout the service area.

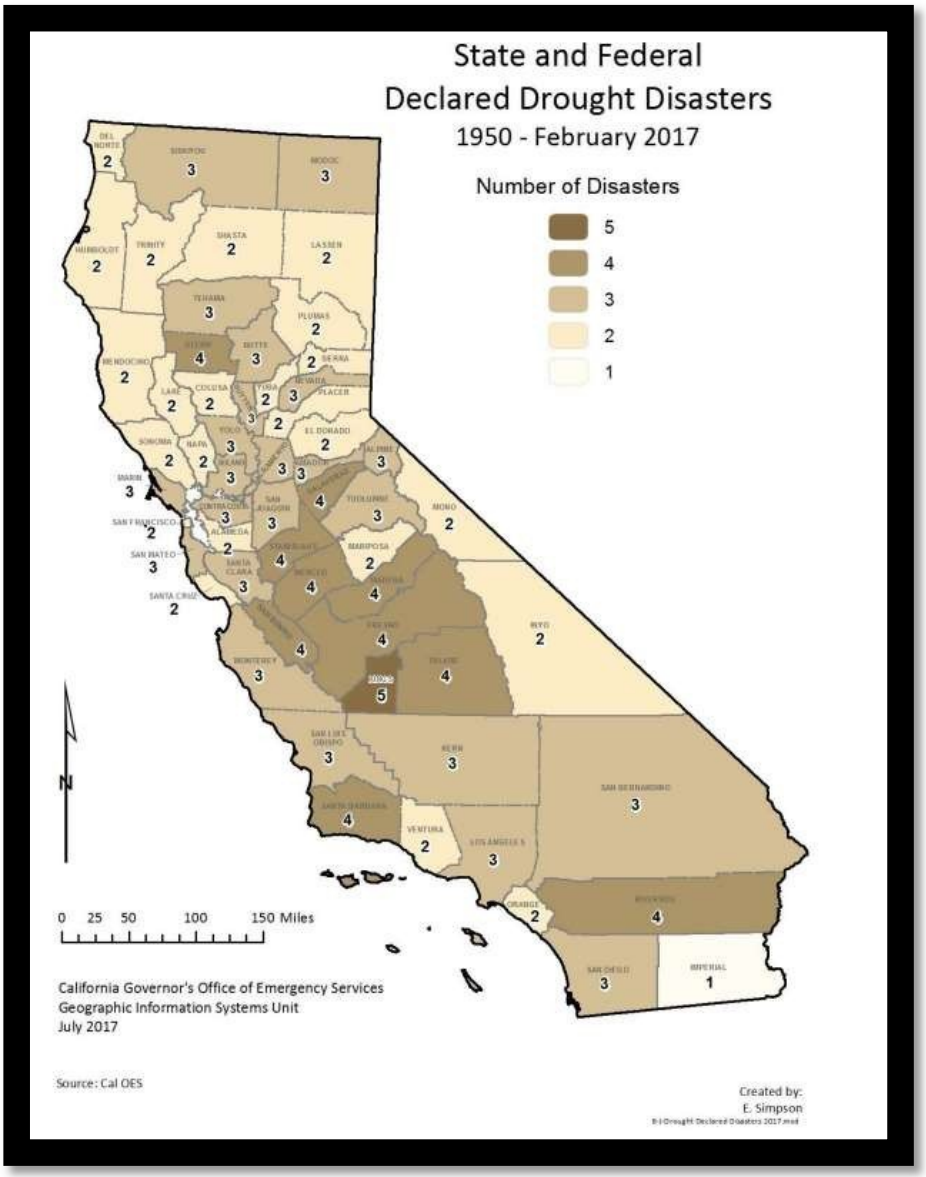
A secondary impact of drought, land subsidence, can occur through excessive groundwater pumping through wells. Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to removal or displacement of subsurface earth materials. Land subsidence due to groundwater pumping can permanently damage or collapse

underground aquifers, increase flood risk in low-lying areas, and pose hazards to buildings, infrastructure, and water storage facilities.

Previous Occurrence:

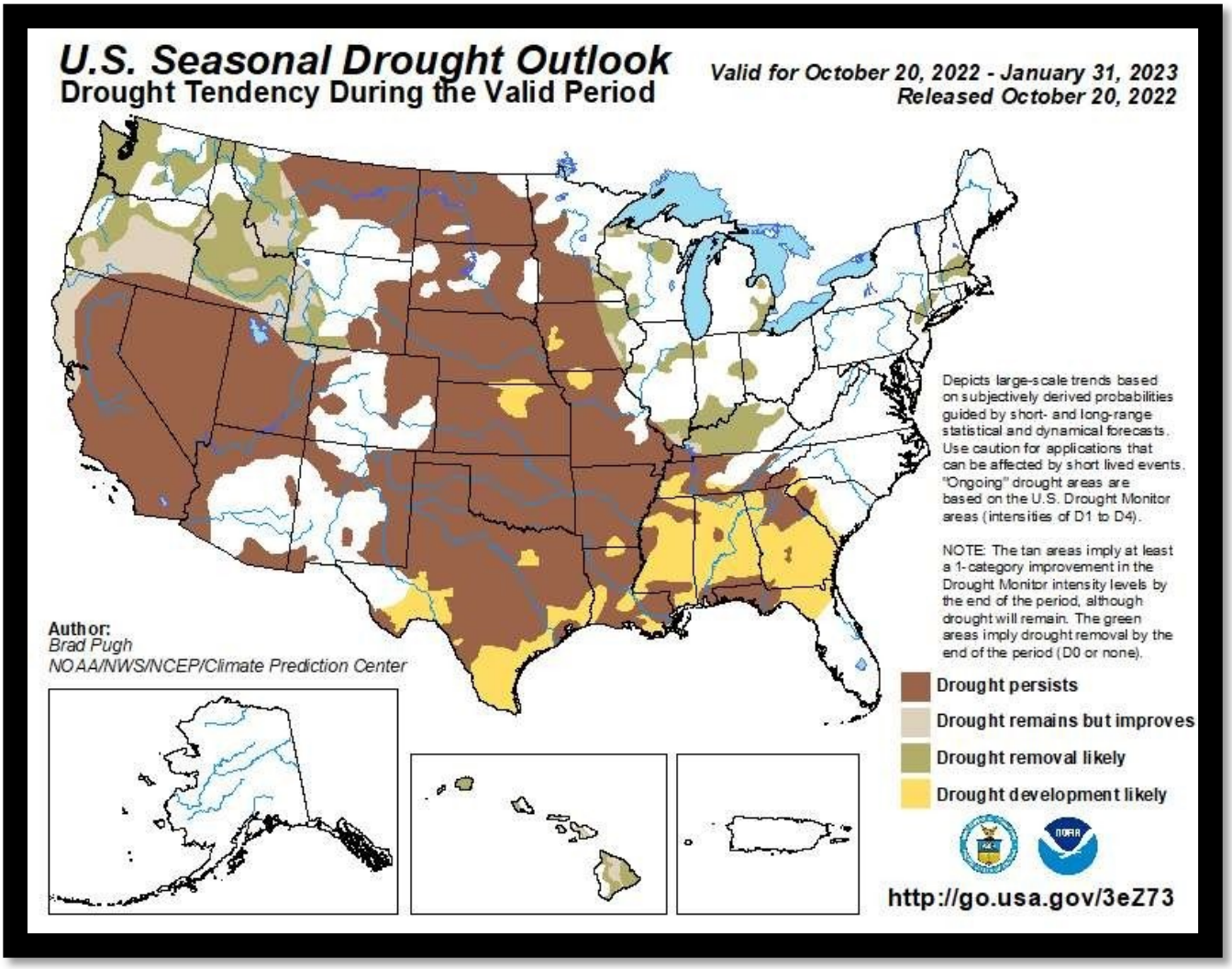
Since 1950, there have been five state and federally declared drought disasters impactingRiverside County:

- 1975-1977
- 1987-1992
- 2007-2009
- 2012-2017
- 2021-Present



Probability of Future Events:

Based on previous occurrences in the past, the probability of future drought events occurring is high. The National Oceanic and Atmospheric Administration (NOAA) U.S. Seasonal Drought Outlook predicts that ongoing drought conditions are likely to persist within the service area.



Climate Change:

According to the California State Hazard Mitigation Plan, the state is already experiencing the impacts of climate change through the intensification of natural disasters. Decreased winter precipitation, sooner than expected snowmelt runoff, and higher temperatures are climate change-related impacts influencing the severity and duration of drought within the service area. With drought conditions forecasted to persist in the future, climate change will add to the uncertainty of drought conditions and continue to challenge the District.

Flooding –

Description:

A flood is described by FEMA as general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties from:

- Overflow of inland or tidal waters
- Unusual and rapid accumulation of surface waters from any source
- Mudslides which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current
- Collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above

As applicable to the District, flooding typically occurs within the service area from an unusual and rapid accumulation of surface waters from any source. Heavy precipitation overwhelming drainage and floods channels has historically effected facilities within the service area. Climate change, El Nino and La Nina weather patterns, atmospheric rivers, and ground saturation are all factors that can contribute to flood severity and duration.

Location/ extent acceptance:

The location of flood zones within the District service area are identified with the FEMA Flood Insurance Rate Maps (FIRM). FIRM is an official map of a community on which FEMA has delineated the flood zones applicable to the community. Flood zones are geographic areas FEMA has defined according to varying levels of flood risk and are described in table 4-3. The extent of flooding is measured by the annual chance of flooding. Flood zones with a 0.2 percent (or 1 in 500) chance of annual flooding are considered moderate to low-risk areas. Flood zones with a 1 percent (or 1 in 100) chance of annual flooding are classified as high risk areas. Data from FIRM has been overlayed onto District critical asset locations to determine the applicable flood risk as referenced in tables 4-4 and 4-5. Flooding may also occur outside of FEMA designated flooding zones due to localized rain fall or infrastructure failure. Localized rainfall has the capability to expose and weaken District underground infrastructure, damage roadways providing access to facilities, and inundate the wastewater system.

Table 4-3

Moderate to Low Risk Areas (.2 Percent Chance)	
Zone	**Description**
B and X (Shaded)	Between the limits of the 100-year and 500-year Floodplain, area with a 0.2 percent (or 1 in 500 chance) annual chance of flooding. This zone is also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
C and X (unshaded)	500-year Floodplain, area of minimal flood hazard.
High Risk Areas (1 Percent Chance)	
Zone	**Description**
A	100-year Floodplain, areas with a 1 percent annual chance of flooding. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
AE	100-year Floodplain. The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones
AH	100-year Floodplain, areas with a 1 percent annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AO	100-year Floodplain, river or stream flood hazard areas, and areas with a 1 percent or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. Average flood depths derived from detailed analyses are shown within these zones.
AR	Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam).
A99	100-year Floodplain, areas with a 1 percent annual chance of flooding that will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.

Table 4-4 Moderate to Low Risk Areas	
Zone	**Asset**
SHADED X	Alvarez Pump Station
SHADED X	Butterfield Stage Pump Station
SHADED X	Well No. 102
SHADED X	Well No. 109
SHADED X	Well No. 120
SHADED X	Well No. 176
SHADED X	Well No. 232
Table 4-5 High Risk Areas	
Zone	**Asset**
A	Los Caballos Pressure Reducing Station
A	Los Caballos Pump Station
A	Lower VDC
A	Upper VDC
A	Vail Lake Pump Station
A	Well No. 118
A	Well No. 123
A	Well No. 130
A	Well No. 131
A	Well No. 132
A	Well No. 133
A	Well No. 141
A	Well No. 149
A	Well No. 152
A	Well No. 154
A	Well No. 157
A	Well No. 158
A	Well No. 161
A	Well No. 164
A	Well No. 177
A	Well No. 203
A	Well No. 233
A	Well No. 236
AE	Cal Oaks Lift Station
AE	Headquarters
AE	Joaquin Ranch Pump Station
AE	Recycled Water Storage Pond 4
AE	Well No. 118
AE	Winchester Park Lift Station
AH	Santa Rosa Water Reclamation Facility

Past Occurrences:

As stated in the Riverside County Multi-Jurisdictional LHMP, Riverside County has experienced more than 30 declared flood disasters since 1950. Since the last 2017 submission of the District LHMP, the District has been impacted by two flooding events in 2017 and 2019. In February 2019, an atmospheric river event caused at least $73 million in damages to Riverside County and $38,454 in damage to the District. A similar atmospheric river event in 2017 caused $65,704 in damages to the District after storm water infrastructure failed, damaging District assets. Table 4-6 summarizes flood damages experienced in Riverside County.

Table 4-6

Location	Date of Incident	Reported Damage	Number Injured	Incident Description
Riverside County	1/17/1993	$12,629,191	0	Flooding
Idyllwild	3/5/1995	$1,000,000	Not Avail.	Flooding caused by rains. 3,000 acres of farmland flooded. Portions of Highway 74 washed away
Mecca	3/6/1995	$1,000,000	2	Flooding caused by rains.
Riverside County	2/6/1998	$12,629,191	0	El Niño storms flooding, debris, road damage, water damage to homes.
Cherry Valley, Calimesa, Yucaipa, Oak Glen Conservation Camp, Banning	7/11 - 7/12/1999	$750,000	3	Flash flood. Camp and property damaged.
Desert Hot Springs	3/5/2000	$300,000	1	Flooding caused by rain and snow.
Moreno Valley	3/7/2000	$1,500,000	Not Avail.	Flooding caused by rain. Mudslides. Homes and property destroyed.
Eastern Riverside County	8/29/2000	Not Avail.	0	Flash flood due to severe thunderstorm, hail, heavy rain.
Eastern Riverside County	7/6/2001	$3,383,000	0	Flash flood. Road damage, farmland damage, crop damage
County Areas & Riverside City	11/24/2001	Not Avail.	Not Avail.	Flood channel blocked. Homes flooded

Location	Date of Incident	Reported Damage	Number Injured	Incident Description
Moreno Valley, Catherdral City	8/18/2003	$500,000	Not Avail.	Flash flood, Government buildings flooded
Anza, Banning	9/4/2003	$150,000	Not Avail.	Flash flood.
Corona, Palm Springs	11/12/2003	$10,000	0	Flash flood.
Mira Loma, Moreno Valley	2/2/2004	$10,000	Not Avail.	Flash flood.
Temecula, Riverside, Mira Loma	2/18/2004	$55,000	Not Avail.	Flash flood.
Mira Loma, Moreno Valley, Perris, Sun City, Lake Elsinore	10/20/2004	$500,000	0	Flash flood.
Riverside County FEMA DR - 1577	12/27/2004	Not Avail.	Not Avail.	Severe Storms, Flooding, Debris Flows and Mud Slides.
Riverside County FEMA DR - 1585	2/16/2005	Not Avail.	Not Avail.	Severe Storms, Flooding, Debris Flows and Mud Slides.
Riverside County FEMA DR - 1884	3/8/2010	Not Avail.	Not Avail.	Severe Storms, Flooding, Debris Flows and Mud Slides.
Riverside County FEMA DR - 1952	12/17/2010	Not Avail.	Not Avail.	Severe Storms, Flooding, Debris Flows and Mud Slides.
Hemet, Coachella Valley and Thousand Palms	9/7 - 9/8/2014	Not Avail.	Not Avail.	Flash flooding in Coachella Valley. Mud and water closed roads and stranded vehicles in La Quinta, Palm Desert, and Thousand Palms. Homes in La Quinta were surrounded by water. Moving water was 3 ft. deep on roads and 4 - 5ft. of standing water submerged vehicles.

Location	Date of Incident	Reported Damage	Number Injured	Incident Description
Throughout County	12/3 - 12/4/2014	Not Avail.	1	Flooding resulted, with mud, debris and water closing several roadways and stranding vehicles. Mud with debris 10 ft. high piled up on Soboba Rd. North of San Jacinto. A swift water rescue was needed.
Throughout County	7/19/2015	Not Avail.	1	Flooding in the county lead to the need for a swift water rescue, the washout of Interstate-10 near Desert Center, and neighborhood in and near Moreno Valley flooded causing damage to resident's homes and property.
Menifee	9/8/2015	Not Avail.	Not Avail.	Flooding
Temecula	1/5 - 1/7/2016	Not Avail.	Not Avail.	Flooding
Throughout County	2/27/2017	Not Avail.	1	Flooding resulted from the storm. A swift water rescue was needed in Temecula. Heavy road damage disrupted traffic.
Throughout County	2/14/2019	73,000,000	Not Avail.	Flash flooding resulted with damage to roads. High snow levels resulted in flooding in the San Bernardino Mountains. Flash flooding and debris flows occurred at and below the Holy Fire burn scar near Lake Elsinore. Highways ripped out by water and debris on both sides of Mt. San Jacinto were closed for weeks for major repairs

Probability of future occurrences/Climate Change:

Based on past occurrences and FEMA risk probability, the potential for future flooding occurrences is high. The District has experienced two declared disasters in the past five years and 37 critical assets lie in FEMA profiled flood zones. Seven critical assets are located within a 500 year flood zone and 30 are located within a 100 year flood zone.

The University of California, Los Angeles conducted research in 2020 and concluded that under a scenario of rapidly increasing greenhouse gas concentrations, extremely dry and extremely wet events become more common over the course of the century. A majority of flood damages previously experienced by the District has been a result of extreme rainfall and failed stormwater infrastructure. With climate change increasing the volatility of the dry and wet seasons, the probability for future flood occurrences from localized rainfall is high.

Earthquake

Description:

An earthquake occurs when earth's tectonic plate boundaries, faults, suddenly slip past one another releasing stored energy in the form of seismic waves. The surface where the slip occurs is called the fault plane and the location below the earth's surface where the earthquake begins is the hypocenter. As a result of an earthquake, damage to the District facilities can result from the effects of ground shaking and liquefaction.

Per the United States Geological Survey (USGS), liquefaction takes place when loosely packed, water-logged sediments at or near the ground surface lose their strength in response to strong ground shaking. Liquefaction occurring beneath buildings and other structures can cause major damage during earthquakes.

Ground shaking is a term used to describe the vibration of the ground during an earthquake. Ground shaking is caused by body waves and surface waves. As a generalization, the severity of ground shaking increases as magnitude increases and decreases as distance from the causative fault increases. District assets vibrate as a consequence of the ground shaking; damage takes place if the asset cannot withstand these vibrations.

Location/ Extent:

The California Earthquake Authority indicates that within the state there are 15,700 known faults, 500 of which are considered active. The largest fault within the District service area is the Elsinore faults.

The Elsinore Fault Zone is one of the largest and fortunately quietest faults in Southern California. The fault is approximately 180 km in length and runs primarily through the cities of Temecula, Murrieta, Lake Elsinore, and Julian. The last major rupture occurred on May 15, 1910 and was a 6.0 magnitude earthquake. The probable magnitude of a major earthquake along the Elsinore fault zone could be in the range of 6.5 to 7.5. Adjacent fault zones located near the District are the San Jacinto fault zone, the Newport-Inglewood fault zone, and the San Andreas fault zone. The San Jacinto Fault Zone is located approximately 21 miles northeast of the District and is capable of generating earthquakes in excess of 7.2 Mw. The Newport-Inglewood Fault Zone is located approximately 28 miles southwest of the District and is capable of generating earthquakes in excess of 6.9 Mw. The San Andreas Fault Zone is located approximately 38 miles northeast of the District and is considered the dominant active fault in California; this fault zone is capable of generating earthquakes in excess of 7.4 Mw.

The extent of earthquake impact is typically measured in terms of its magnitude, energy release, and shaking intensity. Three levels of measurement are primarily utilized in the United States: the Richter Scale, the Moment Magnitude Scale, and the Modified Mercalli Intensity Scale.

The Richter Scale indicates the magnitude of an earthquake as determined from the logarithm of the amplitude of waves recorded by seismographs. The Richter Scale was replaced because it worked largely for earthquakes in Southern California, and only those occurring within about 370 miles of seismometers. In addition, the scale was calculated for only one type of earthquake wave. It was replaced with the Moment Magnitude Scale, which records all the different seismic waves from an earthquake to seismographs across the world. The Richter Scale, however, is still used in forecasting future earthquakes and estimating earthquake hazards.

The Moment Magnitude Scale is the currently preferred method due to it working over a wider range of earthquake sizes and its global applicability. According to Michigan Technological University, the Moment Magnitude scale is based on the total moment release of the earthquake. Moment is a product of the distance a fault moved and the force required to move it. It is derived from modeling recordings of the earthquake at multiple stations. Moment Magnitude estimates are about the same as Richter magnitudes for small to large earthquakes.

Magnitude Level	Category
1.0-2.9	Micro
3.0-3.9	Micro
4.0-4.9	Light
5.0-5.9	Moderate
6.0-6.9	Strong
7.0-7.9	Major
8.0 or higher	Great

The Modified Mercalli scale is used in the United States to convey the intensity of an earthquake. Intensity, as described by the USGS, is the effect of an earthquake on the earth's surface. The intensity value assigned to a specific site after an earthquake has a more meaningful measure of severity than the magnitude because intensity refers to the effects experienced at that place. The lower numbers of the intensity scale generally deal with the manner in which the earthquake is felt by people. The higher numbers of the scale are based on observed structural damage.

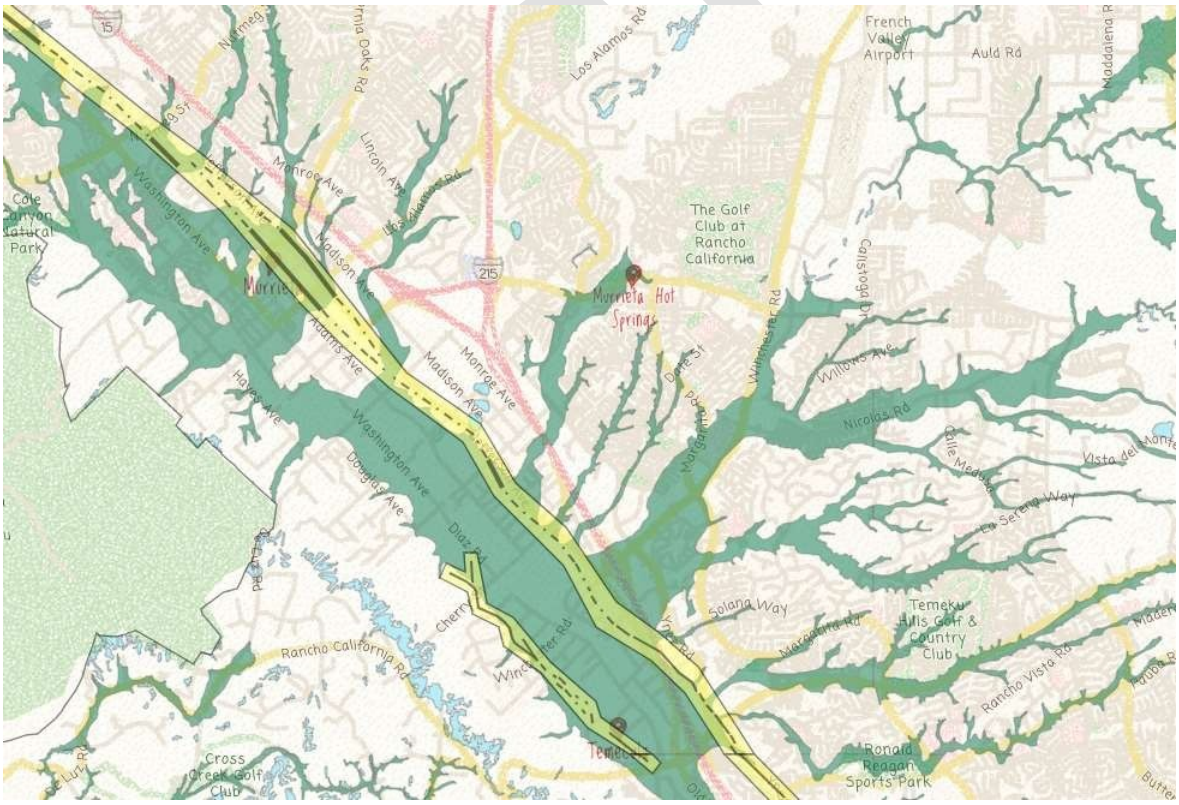
Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.

Intensity	Shaking	Description/Damage
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

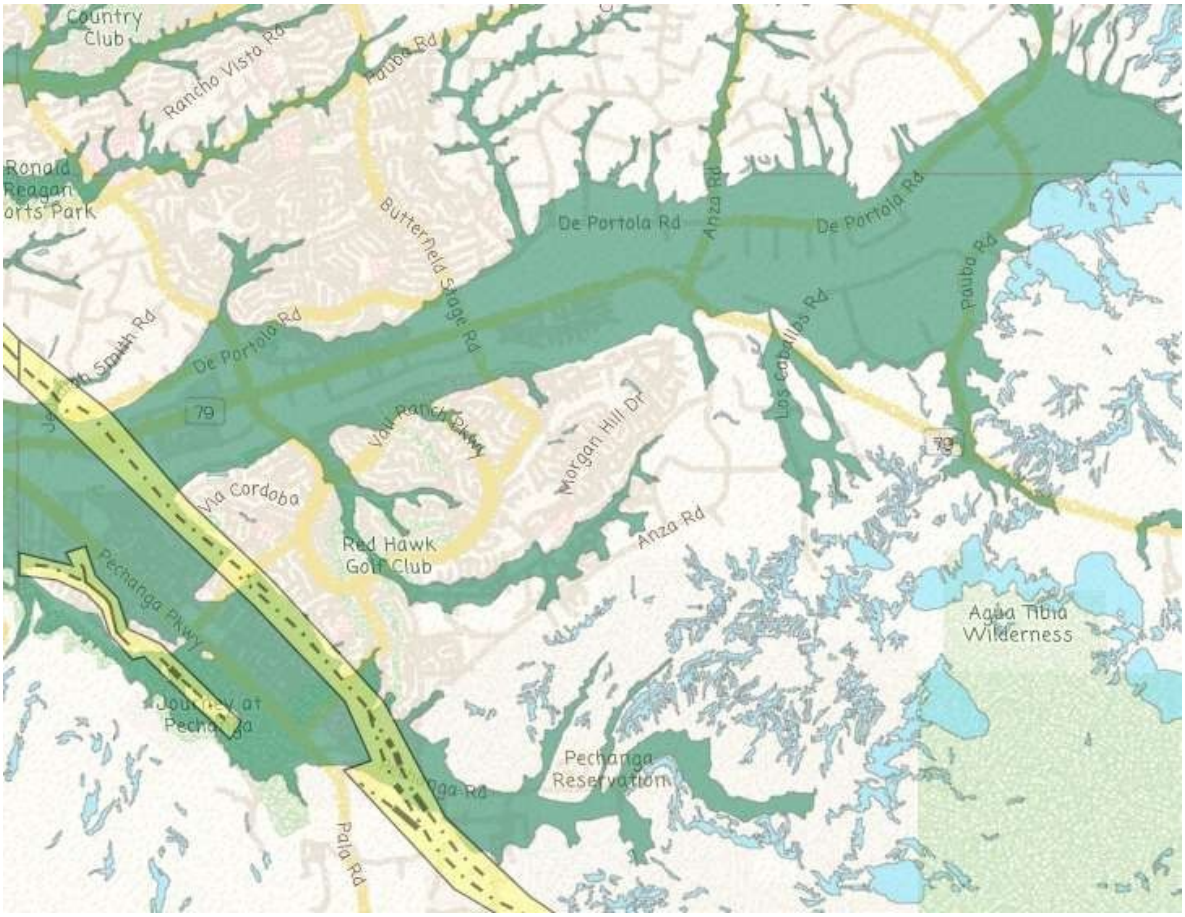
The District has multiple facilities located within or adjacent to Southern California fault lines. Earthquake related ground shaking has the potential to cause significant damage to pipelines which would likely result in service disruption. Further as the District currently imports approximately 60 percent of its water, earthquakes outside the regional have the potential to impact the ability to import water.

Liquefaction ground failure has historically been associated with major earthquake related damage. The 1971 San Fernando and 1994 Northridge earthquakes caused significant liquefaction damage to roads, utility pipelines, and buildings through liquefaction-induced ground displacement. Facilities most susceptible to liquefaction damage are within 40 ft of the ground surface. As the District owns and operates facilities within this range including but not limited to pipelines, treatment facilities, well sites, and pumpstations, the District is susceptible to damages from liquefaction. Within the service area, there are two primary Earthquake Zones of Required Investigation (EZRI) with liquefaction hazards per the California Geological Survey (CGS), the Murrieta Quadrangle and the Pechanga Quadrangle. The Seismic Hazards Mapping Act of 1990 directs state geologists to prepare maps that delineate seismic hazard zones within a EZRI for the purpose of reducing the threat to public safety and minimize the loss of life and property.

About 23 square kilometers (9 square miles) of land in the Murrieta Quadrangle has been designated EZRI for liquefaction hazard, encompassing much of the Murrieta-Temecula Valley, Geotechnical tests conducted indicate that these soils generally have a moderate to high likelihood of liquefying, given the level of strong ground motions this region could be subjected to.



About 23 square kilometers (9 square miles) of land in the evaluated area of the Pechanga Quadrangle has been designated EZRI for liquefaction hazard, encompassing most of the Pauba Valley and Wolf Valley. Geotechnical tests indicate that these soils generally have a moderate to high likelihood of liquefying, given the region is subject to strong ground motion.



Past Occurrences:

Throughout California, multiple small earthquakes are recorded on a daily basis by research centers. The most recent significant earthquake within Riverside County occurred on January 13, 2022 in Anza, CA and had a magnitude of 3.9.

Year	Richter Scale Magnitude	Description
1812	7.0	Occurred on the southern section of the San Andreas fault near Wrightwood.
1857	7.9	Occurred 60 miles northwest of Fort Tejon and ruptured 225 miles of the San Andreas fault.
1890	6.5	Occurred in the "San Jacinto or Elsinore Fault region" on the Rockhorse Truck Trail, north of the Borrego Valley Airport.
1890	6.5	Occurred in the same region as the 1890 earthquake.
1899	6.4	San Jacinto earthquake destroys San Jacinto and Hemet.
1910	5.0	Occurred on the Elsinore fault northwest of the City of Lake Elsinore.
1918	6.9	San Jacinto earthquake strikes the same area that was damaged by an earthquake 19 years earlier.
1923	6.3	North San Jacinto Fault earthquake damaged the San Bernardino and Redlands area. This is the last known time that this fault, which runs under the I-215 / I-10 interchange, ruptured in this area.
1937	6.0	Terwilliger Valley earthquake was in the same general area as the 1890 earthquake.
1942	6.3	Fish Creek Mountains earthquake was south of the Ocotillo airport.
1954	6.2	Arroyo Salada earthquake was west of the Salton Sea.
1968	6.5	Borrego Mountain Earthquake was northeast of Ocotillo Wells.
1987	6.6	Superstition Hills earthquake near the Salton Sea.
1992	7.2	Occurred near Landers, California and caused the rupture of five different faults. Those faults were: Johnson Valley, Landers, Homestead Valley, Emerson, and Camp Rock.
1992	7.3	Occurred 3 hours after the Landers Earthquake with an epicenter near Big Bear, California.
1994	6.8	Northridge Earthquake
1999	7.4	Hector Mine Earthquake
2010	5.4	Borrego Springs earthquake believed by seismologists to have been possibly triggered by the strong earthquake which occurred near Calexico in 2010.

Future Occurrences:

The likelihood of a future earthquake is high. The California Earthquake Authority states a 75 percent probability of one or more magnitude 7.0 earthquakes striking California based on a 30-year period, beginning in 2014.

Wildland Fire

Description:

Wildland fire is a broad definition describing non-structural fires involving vegetation and natural fuels. The definition encompasses the definitions of wildfire and prescribed burn. A wildfire is an unplanned fire caused by natural sources, such as lightening, or man-made sources such as arson. A prescribed burn is a planned fire ignited by authorities to accomplish an objective, such as reducing available fuels within an area. California has an extensive history of wildland fires, with two declared disasters occurring within or near the District boundaries within the past five years.

Location/Extent:

The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These designations, referred to as Fire Hazard Severity Zones (FHSZ), mandate how people construct buildings and protect property to reduce risk associated with wildland fires.

Within the District service area, multiple locations have been identified very high, high, and moderate by Cal FIRE. Multiple District critical assets are located within these zones and are subject to damage in the event a wildland fire occurs. Impacts experienced by the District can be but are not limited to power outages and damaged infrastructure.

District Assets within Fire Zones	
Fire Zone Severity	**Asset**
Very High	Ace Bowen Pump Station 1
Very High	Ace Bowen Pump Station 2
Very High	Ace Bowen Pump Station 3
Very High	Ace Bowen Pump Station 4
Very High	Ace Bowen Reservoir 1
Very High	Ace Bowen Reservoir 2
Very High	Alvares Reservoir
Very High	Avenida Escala Pump Station
Very High	Avocado Mesa Pressure Reducing Station
Very High	Baldaray Pump Station
Very High	Baldaray Reservoir
Very High	Bear Creek Pressure Reducing Station
Very High	Bear Creek Pump Station
Very High	Bear Creek Recycled Reservoir
Very High	Bear Creek Reservoir
Very High	Calaveras Reservoir
Very High	Calle Breve Pressure Reducing Station
Very High	Calle Breve Pump Station
Very High	Calle Paramo Reservoir

District Assets within Fire Zones	
Fire Zone Severity	**Asset**
Very High	Carancho West Pressure Reducing Station
Very High	Chaparral Pressure Reducing Station
Very High	Cole Creek Recycled Reservoir
Very High	Cole Creek Recycled Storage Pond
Very High	De Luz Pump Station
Very High	De Luz Reservoir 1
Very High	De Luz Reservoir 2
Very High	De Portola Pump Station
Very High	De Portola Reservoir 1
Very High	De Portola Reservoir 2
Very High	East Bluff Pump Station
Very High	El Chimisal Recycled Reservoir
Very High	El Chimisal Reservoir 1
Very High	El Chimisal Reservoir 2
Very High	El Chimisal Reservoir 3
Very High	Freeman Pump Station
Very High	Freeman Reservoir 1
Very High	Freeman Reservoir 2
Very High	Glenoaks Reservoir 1
Very High	Glenoaks Reservoir 2
Very High	La Cresta Reservoir
Very High	Los Caballos Pressure Reducing Station
Very High	Los Caballos Pump Station
Very High	Parado Del Sol Pressure Reducing Station
Very High	Paseo Chaparro Pressure Reducing Station
Very High	Recycled Water Storage Pond 1
Very High	Recycled Water Storage Pond 2
Very High	Recycled Water Storage Pond 3
Very High	Recycled Water Storage Pond 4
Very High	Recycled Water Storage Pond 5
Very High	Redonda Mesa Pump Station
Very High	Redonda Mesa Reservoir
Very High	Sandia Creek Pressure Reducing Station
Very High	Senga Doherty Pump Station
Very High	Senga Doherty Reservoir
Very High	Tenaja Pump Station
Very High	Tenaja Reservoir
Very High	Upper VDC Facility
Very High	Vail Campground Reservoir
Very High	Vail Lake Pump Station
Very High	Via Santa Rosa Pump Station
Very High	Via Vista Pressure Reducing Station
Very High	Vista Del Mar Pressure Reducing Station
Very High	Well 152
Very High	Well 153

District Assets within Fire Zones	
Fire Zone Severity	**Asset**
Very High	Well 154
Very High	Well 157
Very High	Well 158
Very High	Well 161
High	Anza Pump Station
High	Anza Reservoir 1
High	Anza Reservoir 2
High	Avocado Mesa Pump Station
High	Avocado Mesa Reservoir
High	Calle Contento Reservoir 1
High	Calle Contento Reservoir 2
High	Lower VDC Facility
High	Tucalota Reservoir
High	Well 123
High	Well 130
High	Well 131
High	Well 133
High	Well 149
High	Well 151
High	Well 176
High	Well 177
High	Well 232
Moderate	Buck Mesa Pump Station
Moderate	Buck Mesa Reservoir 1
Moderate	Buck Mesa Reservoir 2
Moderate	Carancho Pressure Reducing Station
Moderate	Carancho Pump Station
Moderate	De Anza Pressure Reducing Station
Moderate	De Luz Pressure Reducing Station
Moderate	El Prado Reservoir 1
Moderate	El Prado Reservoir 2
Moderate	Via Vaquero Pump Station
Moderate	Via Vaquero Reservoir
Moderate	Well 113
Moderate	Well 132
Moderate	Well 203
Moderate	Well 233
Moderate	Well 236

Past Occurrences:

There is a long history of wildfires in Riverside County. The table below represents wildland fires of 100 acres or greater from 2017-2022. Within the past five years, two of such fires have occurred within the District service area and are highlighted in the table.

Name	Date	Acres Claimed
Opera Fire	4/30/2017	1350
Canyon Fire	9/25/2017	2662
Wildomar Fire	10/26/2017	866
Patterson Fire	5/17/2018	1261
Cranston Fire	7/25/2018	13139
Holy Fire	8/6/2018	23136
Tenaja Fire	9/4/2019	1926
Horseshoe Fire	9/14/2019	503
Sandalwood Fire	10/10/2019	1011
Reche Fire	10/10/2019	350
Hill Fire	10/30/2019	600
Apple Fire	8/1/2020	33424
Candy Fire	9/29/2020	454
Silverado Fire	10/26/2020	12466
Blue Ridge Fire	10/26/2020	13964
Bond Fire	12/2/2020	6686
Sanderson Fire	12/13/2020	1954
Lake Fire	5/24/2021	115
Flats Fire	6/13/2021	341
Stowe Fire	6/28/2021	122
Rock Fire	8/24/2021	295
South Fire	8/25/2021	680
Chapparal Fire	8/28/2021	1427
Jim Fire	3/2/2022	553

Future Occurrences/ Climate Change:

The likelihood of another wildland fire occurring within the District service area is high. Moderate-Very High FHSZ populate a large portion of the District service area with an excess of 102 assets being located within these zones. Additionally, seasonal Santa Ana winds occur within the District, triggering the Nation Weather Service to issue red flag warnings and fire weather watch alerts throughout the District.

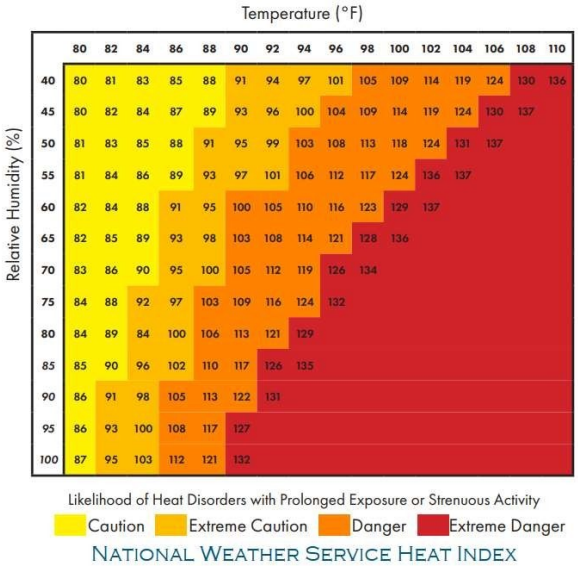
According to the NOAA, climate change continues to create warmer and drier conditions causing a more active and extended fire season. Wildfires require several factors to align such as a lack of moisture in fuels, temperature, and humidity; all these factors have strong direct or indirect ties to climate change.

<u>Extreme Weather</u>

Description:

Extreme weather is broadly defined as severe weather that poses a threat to life or property. Three types of extreme weather typically impact the District: excessive heat, windstorms, and heavy rainfall.

The definition of excessive heat varies by government authority, but is loosely defined as a combination of hot temperatures and high humidity that can create a situation where heat related illness is possible. The National Weather Service (NWS) describes extreme heat using the Heat Index to correlate temperature and relative humidity to the likelihood of heat related illnesses. The California Occupational Safety and Health Administration (CalOSHA) further defines high heat as temperatures equal or exceeding 95 degrees Fahrenheit. Excessive heat is the leading cause of weather-related fatalities within the United States.



Windstorms or damaging winds are described by the NWS as 40-50mph straight-line winds capable of causing isolated wind damages. Windstorms can occur during severe thunderstorms, strong weather systems, or can flow down from a mountain. Windstorms are capable of damaging District communication equipment, causing localized power outages, and exacerbating wildland fires within the service area.

Heavy rainfall

While there is no set definition for heavy rainfall, it can be generally described as more rainfall than normal, typically observed during a single storm event such as an atmospheric river. Atmospheric rivers or a "pineapple express" weather pattern are narrow regions in the atmosphere that transport moisture from the tropics to northern latitudes. In the District's service area, atmospheric rivers have been responsible for multiple heavy rainfall events and subsequent flooding damages. Heavy rainfall events have the capability to inundate and damage storm water infrastructure, which in turn can expose and weaken District underground infrastructure. These events have also historically damaged access roads and have flooded aboveground District structures.

Location/ Extent:

It can be assumed that an excessive heat, windstorm, or heavy rainfall event can expose some or all of the District to these hazards. Data currently does not depict geographical locations within the District whereas one area would be more vulnerable to these types of hazards. However, certain areas within the District may be more exposed to specific hazards due to their geographic location or topography. For example, locations adjacent to storm water infrastructure may experience damage from heavy rain fall events while assets located within the Santa Ana mountains may experience higher sustained winds throughout canyon areas.

Temperatures throughout the District's service area are high, especially during summer months. Temperature in excess of 90 degrees Fahrenheit can be observed from March to November, with the highest summer temperatures being categorized as extreme danger according to the NWS heat index. In 2006, a California heat wave claimed 140 lives in the state between July 15 and August 1.

The most common occurrence of wind storms takes place between October and February, when Santa Ana winds take place. Wind speeds are typically north to east at 35 knots through and below passes and canyons with gusts to 50 knots. Stronger Santa Ana winds can have gusts greater than 60 knots over widespread areas and gusts greater than 100 knots in favored areas. While wind storms typically do not impact the District's ability to provide service, wind storms can significantly impact electrical utilities. During wind storms the District's electrical utility provider, Southern California Edison (SCE), monitors conditions and will proactively deenergize power grids through its Public Safety Power Shutoff (PSPS) program. During such PSPS events, the District is forced to rely on alternate sources of energy such as natural gas or diesel powered generators to provide service. Windstorms also have the ability to exacerbate wildland fire conditions.

Recently, heavy rain events have occurred throughout the District's service area. On January 19, 2017, 2 to 7 inches of rain fell throughout the service area, inflicting approximately $157,000 in damages to buildings and infrastructure. Later, on February 14, 2019 an atmospheric river precipitated 6 to 10 inches of rain on the District, causing an estimated $67,000 in damage.

Past Occurrences:

Excessive Heat

Since 2017, there have been 10 excessive heat events in Southern California recorded as significant weather events by the NWS. In the District service area, seasonal temperatures annually record as extreme danger according to the heat index scale.

Windstorm

Since 2017, there have been 21 windstorm events in Southern California recorded as significant weather events by the NWS. The District annually experiences Santa Ana winds from October to February which trigger PSPS occurrences throughout the service area.

Heavy Rain

Since 2017, there have been 23 heavy rainfall events in Southern California recorded as significant weather events by the NWS. The last heavy rainfall events damaging District assets occurred January 2017 and February 2019.

Future Probability/ Climate Change:

Due to the annual excessive heat events and windstorms triggering PSPS within the District's service area, the future probability of both events is high. Based on previous historical occurrences, the probability of heavy rain events is medium, as drought conditions are likely to persist. However, as discussed under the flood hazard profile, climate change will continue to effect the volatility of dry and wet events.

<u>Dam Failure</u>

Description:

Dam failure is the uncontrolled release of impounded water resulting in downstream flooding. Dams can fail for a number of reasons, including overtopping caused by floods, earthquakes, acts of sabotage, or structural failure of materials used in construction. Dams present risks, but they also provide many benefits, including irrigation, flood control, and recreation.

Within California, dams are regulated by the Department of Water Resources, Division of Safety of Dams (DSOD). DSOD regulatory oversight includes:

- Reviewing and approving dam enlargements, repairs, alterations, and removals.
- Performing independent analyses to understand dam and appurtenant structures performance.
- Overseeing construction to ensure work is being done in accordance with the approved plans and specifications.
- Inspecting each dam on an annual basis.
- Periodically reviewing the stability of dams and their major appurtenances.
- Assigning each jurisdictional dam a downstream hazard classification.

The downstream hazard is based solely on potential downstream impacts to life and property should the dam fail when operating with a full reservoir. This hazard is not related to the condition of the dam or its appurtenant structures. The definitions for downstream hazard are borrowed from the Federal Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures. FEMA categorizes the downstream hazard potential into three categories in increasing severity: Low, Significant, and High. DSOD adds a fourth category of "Extremely High."

Downstream Hazard Potential Classification	Potential Downstream Impacts to Life and Property
Low	No probable loss of human life and low economic and environmental losses. Losses are expected to be principally limited to the owner's property.
Significant	No probable loss of human life but can cause economic loss, environmental damage, impacts to critical facilities, or other significant impacts.
High	Expected to cause loss of at least one human life.
Extremely High	Expected to cause considerable loss of human life or would result in an inundation area with a population of 1,000 or more.

DSOD uses the United States Army Corps of Engineer's National Inventory of dams' condition assessment rating definitions in assigning condition assessments. A dam safety deficiency is defined as a load capacity limit or other issue that can result in a failure of the dam or appurtenant structure. It is a characteristic or condition that does not meet the applicable minimum regulatory criteria.

Normal operations are defined as loading on the dam resulting from day-to-day pool operations to achieve authorized purposes in accordance with minimum state or federal regulatory criteria.

Ratings	Definitions from the National Inventory of Dams
Satisfactory	No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions (static, hydrologic, seismic) in accordance with the minimum applicable state or federal regulatory criteria or tolerable risk guidelines.
Fair	No existing dam safety deficiencies are recognized for normal operating conditions. Rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. Risk may be in the range to take further action. Note: Rare or extreme event is defined by the regulatory agency based on their minimum applicable state or federal criteria.
Poor	A dam safety deficiency is recognized for normal operating conditions which may realistically occur. Remedial action is necessary. Poor may also be used when uncertainties exist as to critical analysis parameters which identify a potential dam safety deficiency. Investigations and studies are necessary.
Unsatisfactory	A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.
Not Rated	The dam has not been inspected, is not under state jurisdiction, or has been inspected but, for whatever reason, has not been rated.

Location/ Extent:

The District currently owns and operates Vail Dam in the vicinity of Temecula, CA. Vail Dam is a concrete arch dam built in 1949 classified as having an extremely high downstream hazard and a fair condition assessment. Dam inundation maps have been prepared, but are available only to authorized agencies for review due to their confidential classification.

Past Occurrences:

Historically, neither the District or Riverside County have experienced any significant dam failures. In February 1980, a series of storms swept through the south and central coastal areas, bringing record amounts of precipitation. Every dam in San Diego County, with the exception of Lake Henshaw, spilled. For the first time since construction, Vail dam spilled water through its emergency spillway, discharging approximately 4,834 AF of water. As a result of the discharge, a training wall was installed to guide the flow of discharged water.

From January 6 to February 28,1993, a series of storms produced 20 to 40 inches of rain over much of the southern California coastal and mountain areas. Vail dam discharged for the second time, releasing approximately 11,726 AF of water.

Future Occurrences/ Climate Change:

The likelihood of a future dam failure is low. There have been no dam failures within the area and Vail dam is currently in the process of being replaced with a new dam.

Climate change does not have a direct impact on dam failure, but can indirectly affect dams. Climate change is forecasted to increase the volatility of future heavy precipitation events in the future and these types of events have historically threatened dams. In 2017, the Oroville dam crisis evacuated 188,000 people after heavy rains damaged the primary and emergency spillways.

Landslide

Description:

A landslide is defined as the movement of a mass of rock, debris, or earth down a slope. Landslides are a type of "mass wasting," which denotes any down-slope movement of soil and rock under the direct influence of gravity. The term "landslide" encompasses five modes of slope movement: falls, topples, slides, spreads, and flows. These are further subdivided by the type of geologic material (bedrock, debris, or earth). Debris flows (commonly referred to as mudslides) and rock falls are examples of common landslide types.

Almost every landslide has multiple causes. Slope movement occurs when forces acting down-slope (mainly due to gravity) exceed the strength of the earth materials that compose the slope. Causes include factors that increase the effects of down-slope forces and factors that contribute to low or reduced strength. Landslides can be initiated in slopes already on the verge of movement by rainfall, snowmelt, changes in water level, stream erosion, changes in ground water, earthquakes, volcanic activity, disturbance by human activities, or any combination of these factors.

Location/Extent:

Following the 1982 El Nino storms in the San Francisco Bay area, the Landslide Hazard Mapping Act mandated new maps to show landslides and landslide hazards. Landslide Hazard Identification Maps were prepared by the CGS for use by local government planners.

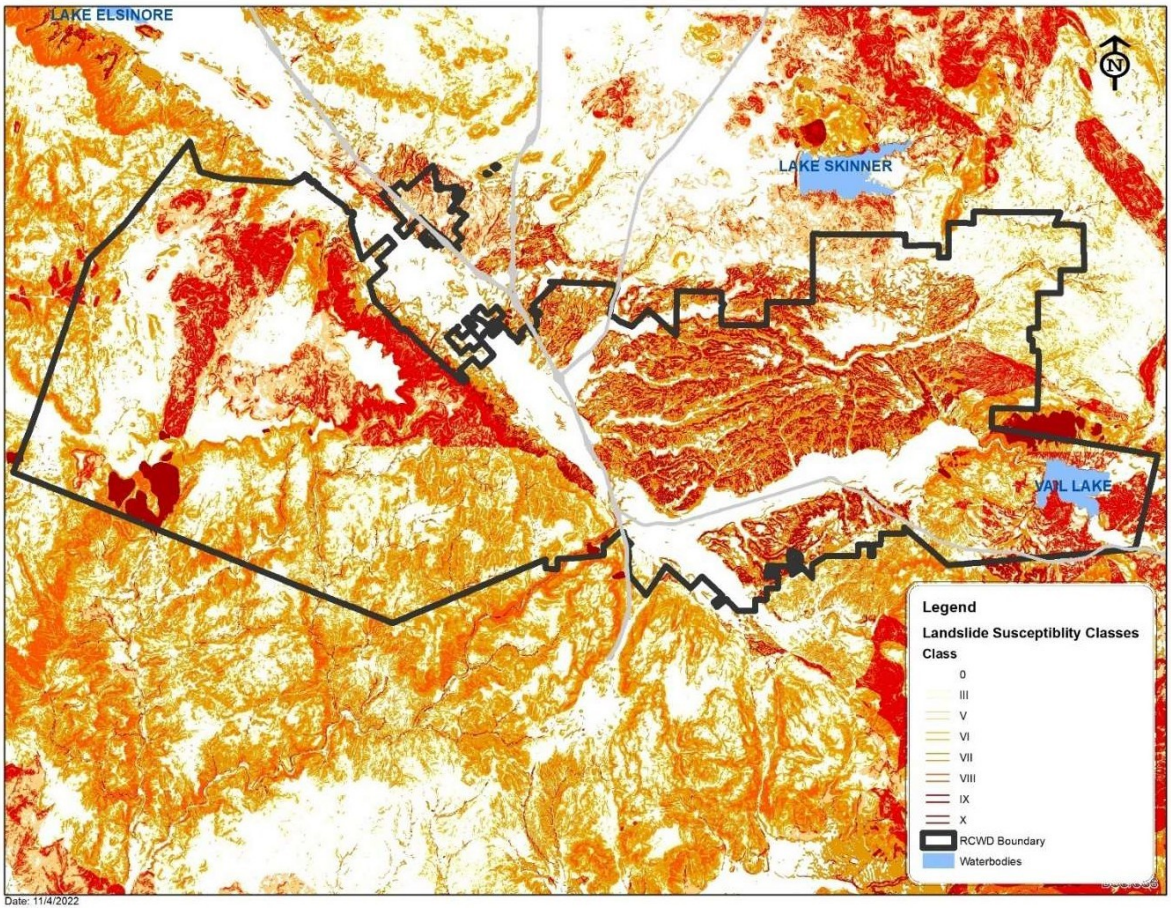
The Susceptibility to Deep-Seated Landslides map covers the entire state of California and was originally published in May 2011 by the CGS. It made use of several data layers of varying scales and formats, such as Landslide Inventory, Geology, Rock Strength, and Slope. For the statewide analysis of landslide susceptibility, rock strength and slope data layers were used to create classes of landslide susceptibility (0 to 10, low to high). These classes express the generalization that on very low slopes, landslide susceptibility is low even in weak materials, and that landslide susceptibility increases with slope and in weak rocks.

Within the District's service area, 66 assets are located in class 3 landslide susceptibility or higher. Landslide susceptibility is highest concentrated on the western portion of the service area in the Santa Ana mountains, but can be found throughout the District. Wildland fires also have the ability to increase the vulnerability

ROCK STRENGTH

SLOPE CLASS (Low → High) \ ROCK STRENGTH (High → Low)		
0	0	0
0	V	VII
0	V	VII
III	VIII	IX
VI	IX	X
VII	IX	X
VIII	IX	X
VIII	IX	X

LANDSLIDE SUSCEPTIBILITY CLASSES



Landslides affect assets, whether they are directly on or near a landslide. Structures built on unstable slopes may experience partial damage to complete destruction as landslides destabilize or destroy foundations, walls, surrounding property, and above-ground and underground utilities.

Fast-moving landslides such as debris flows are the most destructive type of landslide to structures, as they often occur without precursors or warnings, move too quickly for any mitigation measures to be enacted, and, due to velocity and material, are often very powerful and destructive. Fast-moving landslides can completely destroy a structure, whereas a slower moving landslide may only slightly damage it, and its slow pace may allow mitigation measures to be enacted. However, left unchecked, even slow landslides can completely destroy structures over time. Debris avalanches and lahars in steep areas can quickly destroy or damage the structures and lifelines of cities, towns, and (or) neighborhoods due to the fact that they are an extremely fast-moving, powerful force. The nature of landslide movement and the fact that they may continue moving after days, weeks, or months preclude rebuilding on the affected area, unless mitigative measures are taken; even then, such efforts are not always a guarantee of stability.

Past Occurrences:



Historically, the District experienced minor damages from mudflows triggered by heavy precipitation. In 2017 and 2019, a heavy precipitation repeatedly impacts the Los Caballos Pump Station, covering the facility with 6 to 12 feet of debris. In 2005, a five-day heavy precipitation event triggered mudslides, closing the Interstate 15 freeway. While not a direct impact to District assets, the closure of Interstate 15 indirectly impacts response and travel times throughout the service area.

Regionally, wildland fires in Southern California have catalyzed landslide and mudslide conditions. After the Holy Fire in August and September of 2018, an adjacent water utility, Elsinore Valley Municipal Water District, was impacted by mudslides. In early October 2018, storms over the Holy Fire burn scar prompted voluntary evacuations and caused debris flows throughout Lake Elsinore.

In January 2018, the Thomas Fire burn scar received a heavy precipitation event triggering catastrophic mudslides, claiming the lives of 23 people and damaging water utility infrastructure.

Probability of Future Occurrences/ Climate Change:

The probability of future landslides and mudslides is medium. While the District has routinely experienced impacts from mudslides, they have had minor to indirect impacts on District assets. However, the future probability of wildland fires is high and this event can directly contribute to landslide and mudslide conditions throughout the service area. Likewise, climate change may not directly influence landslides but can intensify and extend wildland fire conditions.

Geological Hazards

Description:

Expansive soils have a significant amount of clay particles that can shrink or swell. The change in volume exerts stress on buildings and other loads placed on these soils. Expansive soils can be widely dispersed and they can occur in hillside areas as well as low-lying alluvial basins. Although expansive soils are now routinely alleviated by following the Riverside County Building Code, problems related to past inadequate grading or site preparation practices can appear. Expansive soils are not the only cause of structural distress in existing structures. Poor compaction and construction practices, settlement and landslides can cause similar damage, but require different mediation efforts. Once expansion has been verified as the source of the problem, mitigation can be achieved through reinforcement of the existing foundation or through the excavation and removal of the expansive soils in the affected area.

Ground subsidence is typically a gradual settling or sinking of the ground surface. Subsidence can range from small or local collapses to broad regional lowering of the earth's surface. While subsidence typically occurs throughout a susceptible valley, additional displacement and fissures occur at or near the valley margin. Susceptible valleys are those predominantly filled with unconsolidated sand and silty sand that includes thin layers of silt and clayey silt.

The causes of subsidence are as diverse as the forms of failure. They include dewatering of peat or organic soils, dissolution in limestone aquifers, first-time wetting of moisture-deficient, low-density soils (hydrocompaction), natural compaction, liquefaction, crustal deformation, subterranean mining and withdrawal of fluids (groundwater, petroleum, geothermal, etc.). Most of the damaging types of subsidence are induced by the extraction of oil, gas, or groundwater from below the ground surface or the organic decomposition of peat deposits, with a resultant loss in volume. Ground subsidence can also occur as a response to natural forces, such as earthquake movements and the evolution of a sedimentary basin as it folds and subsides.

Location/ Extent:

Within the District's service area, limited mapping has been done on expansive soils. Soils containing expansive clay do exist throughout the District and can cause damages if left unmitigated. With a destabilized foundation, expansive soils can inflict small cosmetic damages or large significant damages to buildings and infrastructure. If identified as the source of the problem early, expansive soils can be successfully mitigated.

Currently there are no mapped areas of land subsidence within the District's service area. Ground subsidence can disrupt surface drainage, reduce aquifer system storage, form earth fissures and damage wells, buildings, roads, and utility infrastructure. Regional subsidence generally damages structures that are sensitive to slight changes in elevations, such as canals, sewers, and drainages. In Riverside County, risk of damage or harm due to regional subsidence is greatest at valley margins. Documented land subsidence has been mapped within three miles of the District in Lake Elsinore. And the District continues to closely manage its largest potential source of land subsidence, groundwater pumping.

Past Occurrences:

There have been no documented cases of land subsidence or expansive soil damages within the District service area.

Future Occurrences/ Climate Change:

The future likelihood of geological hazards is low. There have been no documented cases within the District; however, instances of land subsidence have occurred just outside of the service area. Climate change has no direct impact on geological hazards, but can influence land subsidence. If drought conditions persist as predicted, increase pressure will be placed on groundwater recharging and withdrawal. A mismanaged or understudied aquifer could lead to groundwater overdraw and subsequent land subsidence.

Public Health Emergency

Description:

A public health emergency is described as a localized or pandemic outbreak of a contagious disease. A pandemic is defined as an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting many people. Outbreaks consisting of viruses and bacteria all pose a threat to human health. Globalization and the advent of more efficient and economical means of travel are factors contributing to a growing number of disease vectors carrying pathogens around the world with the potential to affect humans and other species.

Location/Extent:

Whether a localized event or widespread outbreak, public health emergencies have the ability to impact all employees within the District. In 2009 and 2019, the novel viruses H1N1 and COVID-19, originated outside of the United States, and eventually spread throughout the District's serviced populations.

Since 1900, there have been four influenza pandemics that killed approximately 600,000 people in the United States. In 2009 the H1N1 flu was first identified in Imperial and San Diego counties, killing more than 550 Californians, sent thousands more to hospitals, caused widespread fear and anxiety and the declaration of a public health emergency. The COVID-19 Pandemic of 2019-2020 demonstrated how an easily transmissible disease could affect the population and economy of the areas served by. Within Riverside County, approximately 6,692 deaths were associated with COVID-19 in addition to the plethora of economic impacts such as job loss, supply chain shortages, and lockdowns.

Past Occurrences:

Since 2009, there have been two significant pandemic events, H1N1 and COVID-19. According to the California Center for Infectious Diseases, the H1N1 flu (2009 H1N1 influenza virus) is a type of influenza virus that causes respiratory disease that can spread between people. While most people who have been sick have recovered without needing medical treatment, hospitalizations, and deaths from infection with this virus has occurred. H1N1 killed approximately 550 Californians and spread globally from 2008 to 2009.

In 2019, the novel virus COVID-19 originated in China and spread globally. Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus experience mild to moderate respiratory illness and recover without requiring special treatment. However, some become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. Since its initial spread in 2019, five variants of concern have circulated globally and continue to impact the United States.

Probability of Future Occurrences:

The probability of future public health emergencies is high. Currently, COVID-19 is still present and continues to impact agencies through operational readiness issues and health impacts to staff. Additionally, there are new occurrences of flu outbreaks every year with some of them rising to wide-spread levels.

4.4 TABLE REPLACEMENT VALUES

Name of Asset	Replacement Value ($)	Occupancy/ Capacity #	Hazard Specific Information
Vail Dam & Lake	95,000,000	n/a	Built 1948, Concrete, 138 Feet High
Wastewater Treatment Plant	47,650,869	12	Buildings/Equipment
Reservoirs	123,000,000	n/a	Steel/Concrete
Pump Stations	20,646,598	n/a	Buildings/Equipment
Lift Stations	2,336,245	n/a	Buildings/Equipment
Chlorination Facility	3,499,035	n/a	Buildings/Equipment
Water Wells	6,326,792	n/a	Buildings/Equipment
Headquarters Facility	19,005,908	138	Buildings/Equipment
Water/Sewer Lines - miles	Unknown	1,017 miles	Pipeline
Estimated Total	252,000,000		

4.5 IDENTIFICATION OF RISKS AND VULNERABILITIES

Hazard Prioritization

The LHMP planning team identified and prioritized hazards based on the following criteria from FEMA guidance. Each criteria was ranked by members of the LHMP planning team by assigning a 1-4 value with one being the lowest and four being highest. Final scores were multiplied by weighted factors based on importance or significance.

- Probability (50 percent weighted score)
- Location (20 percent weighted score)
- Primary Impact (17.5 percent weighted score)
- Secondary impact (12.5 percent weighted score)

To enhance collaboration and discussion regarding hazard ranking the LHMP Project Management Team facilitated a survey, allowing each LHMP Planning Team member to individually report their initial thoughts on probability, location, maximum probable extent, and secondary impacts. Rankings were assigned individually based on knowledge of past occurrences and familiarity with the District's vulnerabilities. The survey was provided to participants during LHMP team meetings, and all attendee filled out the survey. Results were averaged to provide a group score per hazard, utilizing the weighted value based on the importance of the criterion.

The hazard rankings were multiplied by weighted factors to obtain a score for each criterion. A higher weight was given to the criterion considered more important or significant. For example, the probability of the hazard's occurrence received a higher weight than the potential secondary impacts. The scores for location, maximum probable extent (anticipated damage), and secondary impacts for each hazard were added together to determine the total impact score for each hazard. The total impact score was then multiplied by the overall probability score to determine the final score for each hazard. The final scores were used to determine the prioritization of each hazard based on the following FEMA recommended scale:

- Low Threat: 0 – 12
- Medium Threat: 12.1 - 42
- High Threat: 42.1 and above

Hazard Type	Probability	Location	Primary Impact	Secondary Impact	Total Score	Hazard Ranking
Drought	7.82	3.056	1.974	1.365	14.215	Medium
Earthquake	5.82	2.84	2.289	1.82	12.769	Medium
Extreme Weather-High Heat	7.28	2.84	1.526	1.09	12.736	Medium
Wildfire	6.9	1.96	2.163	1.59	12.613	Medium
Public Health Emergency	4.36	2.328	1.785	1.41	9.883	Low
Extreme Weather-Heavy Rains	4.54	2.112	1.652	1.135	9.439	Low
Dam Failure	2	2.184	2.289	1.82	8.293	Low
Flood	2.9	1.96	1.848	1.41	8.118	Low
Extreme Weather-Severe Cold	3.82	1.888	1.015	0.82	7.543	Low
Landslide/ Mudslide	3.1	1.16	1.463	1	6.723	Low
Geological Hazards-Land Subsidence	2.72	1.16	1.274	0.865	6.019	Low
Geological Hazards-Expansive Soils	2.36	1.16	1.211	0.82	5.551	Low

Impacts and Vulnerabilities

The District's priority hazards include the following:

#1- Flood – Throughout the service area, District assets are located within FEMA mapped 100-year and 500-year flood plain zones. Assets located within these zones, such as the District headquarters, SRWRF, production wells, pressure reducing stations, lift stations, and pumpstations are vulnerable to floods due to location and perimeter design. Possible impacts to District assets include, but are not limited to:

- Collection system inundation (SRWRF, lift station)
- Water contamination (Wells)
- Restricted access (all assets)

- Forced alternate work and equipment staging locations (SRWRF, Headquarters)
- Foundation erosion (all assets)
- Soil erosion (pipelines)

Moderate to Low Risk Areas		
Zone	**Asset**	**Replacement Value**
SHADED X	Alvarez Pump Station	$ 8,000,000.00
SHADED X	Butterfield Stage Pump Station	$ 12,000,000.00
SHADED X	Well 102	$ 6,000,000.00
SHADED X	Well 109	$ 6,000,000.00
SHADED X	Well 120	$ 6,000,000.00
SHADED X	Well 176	$ 6,000,000.00
SHADED X	Well 232	$ 6,000,000.00
High Risk Areas		
Zone	**Asset**	**Replacement Value**
A	Los Caballos Pressure Reducing Station	$ 750,000.00
A	Los Caballos Pump Station	$ 8,000,000.00
A	Lower VDC	$ 30,000,000.00
A	Upper VDC	$ 65,000,000.00
A	Well 118	$ 6,000,000.00
A	Well 123	$ 6,000,000.00
A	Well 130	$ 6,000,000.00
A	Well 131	$ 6,000,000.00
A	Well 132	$ 6,000,000.00
A	Well 133	$ 6,000,000.00
A	Well 141	$ 6,000,000.00
A	Well 149	$ 6,000,000.00
A	Well 152	$ 6,000,000.00
A	Well 154	$ 6,000,000.00
A	Well 157	$ 6,000,000.00
A	Well 158	$ 6,000,000.00
A	Well 161	$ 6,000,000.00
A	Well 164	$ 6,000,000.00
A	Well 177	$ 6,000,000.00
A	Well 203	$ 6,000,000.00
A	Well 233	$ 6,000,000.00
A	Well 236	$ 6,000,000.00
AE	Cal Oaks Lift Station	
AE	Headquarters	$ 26,000,000.00
AE	Joaquin Ranch Pump Station	$ 8,000,000.00
AE	Recycled Water Storage Pond 4	$ 12,000,000.00

Zone	Asset	Replacement Value
AE	Well 118	$ 6,000,000.00
AE	Winchester Park Lift Station	
AH	Santa Rosa Water Reclamation Facility	$ 70,000,000.00

#2-Wild Fire - Many of the District's facilities are located in or near open grassland and are potentially subject to the effects of a wildfire burning across the area. The fuel density in the majority of these areas is primarily medium to high. For all District facilities, to reduce potential fire hazard, vegetation should be adequately irrigated and consist of fire-resistant landscape or replaced with resistant landscape. Also, there should be a setback from the facility to any native vegetation susceptible to burning, in order to minimize the potential for fire damage.

#3- Earthquake – Rancho Water is located in a Seismic Hazard Zone. The nearest active earthquake fault is the Elsinore Fault, which is located in the District's service area. Rancho Water has experienced several noticeable earthquake incidents over the last 15 years; however, no local damage was sustained. Mitigation funding would be used to earthquake-harden facilities and to retrofit pump stations.

#4-Severe Weather – The District is subject to high winds, usually as a result of Santa Ana conditions when high pressure pushes winds from the north and east across the region. District facilities may be damaged as a result of trees or tree branches falling on the facility or exposed infrastructure; however, the most likely scenario would be the loss of power to a facility or several facilities in a power grid from power lines being blown down.

#5- Hazardous Materials - The District uses various chemicals at its facilities for water treatment and disinfection. Chemical containers are double-walled and/or bermed to prevent releases, and any release would be localized and contained onsite; however, there are major transportation corridors, the I-15 and I-215 freeways, on which hazardous chemicals are transported daily near District facilities. A collision on one of these freeways, or a derailment, could potentially release any number of toxic chemicals either onto the ground or as an airborne release. Such a release could have an effect on District staff to be able to access and operate and/or maintain District facilities.

#6- Agricultural Hazards - Some of the lands within the District service area are in agricultural production, primarily avocado farms and wineries. Crop losses in the surrounding area due to hazards have economic impacts in Riverside County. The District service area's agriculturally-based economy is vulnerable to freezes, heat waves, flooding, drought, and insect infestations. An event that results in reduced crop or product production could negatively impact Rancho Water by a loss of revenue due to a reduction in water sales.

#7- Dam Failure - The Robert A Skinner Dam is located in the northwest section of the District's service area, with Vail Dam located in the northeast section. A failure of either dam would result in major damage to District facilities.

#8- Drought - The Riverside County area is semi-arid and, in most areas, depends on water imported from other areas. The area has been in a drought condition for the past six years, with an extreme drought condition present in 2014, 2015, and into 2016. Even those communities and districts that have well water are dependent on local snowfall to replenish the groundwater that supplies those wells. The extended drought in the Southern California region requires the District to rely on an increase in imported water; however, that imported water source was affected by the drought conditions present, making it available in limited quantities.

SECTION 5.0 – COMMUNITY RATING SYSTEM

5.1 REPETITIVE LOSS PROPERTIES

This map shows flood zones for Rancho Water's service area. In 1980 and 1993, some pipelines were exposed and some levees or berms were washed out and had to be rebuilt. The damage was caused by heavy rains, which caused Vail Dam to overflow. These facilities were located at the canyon below Vail Dam/Lake. There are approximately 20 facilities near the blue flood zones. **There is no repetitive loss properties.**



5.2 NATIONAL FLOOD INSURANCE PROPERTIES

Rancho Water is not a member of the National Flood Insurance Program (NFIP), and is self-insured with excess coverage provided by membership in Association of California Water Agencies/Joint Powers Insurance Authority (ACWA/JPIA).

SECTION 6.0 - CAPABILITIES ASSESSMENT

Capabilities assessments are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections:

- Planning and Regulatory Mitigation Capabilities
- Administrative and Technical Mitigation Capabilities
- Financial Mitigation Capabilities
- Education and Outreach Mitigation Capabilities
- Funding Opportunities

How can these capabilities be expanded upon and improved to reduce risk?

Multiple mitigation measures are priority projects to expand on the District's capabilities, including new plans and programs. Example of opportunities to expand capabilities include the following mitigation actions **(Refer to Section 7.2 Mitigation Actions Table)**:

Planning and Regulatory: Develop Emergency Water Outage Supply plan and identify/purchase equipment required (Mitigation Activity #18), Develop site specific response plans for assets within the 100- and 500-year flood plain zones (Mitigation Activity #21), Review, update, and exercise Vail Dam Emergency Action Plan (Mitigation Activity #27), Develop Emergency Response Plan addressing tactics to mitigate displaced employees and family in the wake of a regional natural disaster (Mitigation Activity #35)

Administrative and Technical: Improve Vail Dam remote monitoring/surveillance capabilities (Mitigation Activity #2), Permit and Construct Vail Dam Seismic and Hydrologic Rehabilitation Project (Mitigation Activity #4), Conduct groundwater banking study (Mitigation Activity #5), Construct VDC regional pump station and chlorine contact tank (Mitigation Activity #6), Construct additional and replacement groundwater supply wells (Mitigation Activity #7), Rehabilitate existing wells (Mitigation Activity #8), Expand recycled water distribution system (Mitigation Activity #9), Study, design, and implement an Indirect Potable Recharge and associated brine disposal facilities (Mitigation Activity #10), Expand Carancho Pump Station and Construct new Rapid Aerial Water Supply Tank (Mitigation Activity #11), Design and construct hydroelectric generation facilities at the Upper VDC and Elm St Pump Station (Mitigation Activity #12), Identify and implement additional measures to harden power infrastructure (Mitigation Activity #13), Develop a District-wide leak detection program (Mitigation Activity #14), Replace aging pipeline infrastructure (Mitigation Activity #15), Assess facility access roads for landslide and mudslide susceptibility (Mitigation Activity #16), Conduct study of liquefaction zones within District Service area (Mitigation Activity #17), Continue developing a corrosion control program (Mitigation Activity #19), Develop lone worker safety program (Mitigation Activity #20), Identify, establish, and test alternate Operations staging area and alternate Emergency Operations Center locations

(Mitigation Activity #22), Improve cell phone and radio coverage (Mitigation Activity #23), Install pan, tilt, zoom, cameras at critical District facilities within fire zone (Mitigation Activity #24), Provide Safety Assessment Program training to engineering staff (Mitigation Activity #25), Consider alternate District staging locations and/or alternate Headquarters location better suited to withstand emergencies, primarily flood impacts (Mitigation Activity #26), Add onsite energy generation and storage/batteries to power critical infrastructure when grid power is not available (Mitigation Activity #28), Conduct study and evaluate need to replace Ace Bowen Reservoir No.1 (Mitigation Activity #29), Design and implement system valve replacement projects to reduce water loss and improve recovery time in the wake of disasters or line breaks (Mitigation Activity #30), Design and construct indirect potable reuse project and brine line to fully maximize future local supplies (Mitigation Activity #31), Identify and implement solution to mitigate the effects of mudslides and debris flow at historically impacts site (Mitigation Activity #32), Assess District limitations in responding to pipeline breaks resulting from natural disasters (Mitigation Activity #33), Conduct vulnerability study for a District wide zero emissions fleet (Mitigation Activity #34), Develop, design, and install flood monitoring system on the Murrieta Creek Channel (Mitigation Activity #36), Identify alternative sources of gasoline and diesel during fuel shortages (Mitigation Activity #37), Conduct Vail Lake dredging project to add additional reservoir storage capabilities (Mitigation Activity #39), Install floating cover on recycled water ponds to reduce evaporation (Mitigation Activity #40), Relocate pipelines parallel to active creek banks or construct pipeline protection improvements (Mitigation Activity #41), Install new water meters for greater identification of losses/leaks increasing water conservation (Mitigation Activity #42)

Financial: Provide all applicable NIMS, SEMS, and ICS training to District employees (Mitigation Activity #3), Replace aging pipeline infrastructure that has shown a propensity to fail to minimize system water loss (Mitigation Activity #15), Improve cell phone and radio coverage at locations where signal strength is weak (Mitigation Activity #23), Identify alternative sources of gasoline and diesel during fuel shortages (Mitigation Activity #37)

Education and Outreach: Provide all applicable NIMS, SEMS, and ICS training to District employees (Mitigation Activity #3), Establish effective Public Information Campaign(s) for Water Conservation (Mitigation Activity #38)

6.1 PLANNING AND REGULATORY MITIGATION CAPABILITIES

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Plan Resource	Rancho Water 2015 Urban Water Management Plan	The Urban Water Management Plan (UWMP) ensures the reliability of water supply is sufficient to meet the needs of water customers during normal, dry, or multiple dry years. Mitigation actions may involve updating water use policies to reflect changes in the regional water supply trends and conservation.	http://www.ranchowater.com/DocumentCenter/View/2023
Plan Resource	Rancho Water Mandatory Recycled and Raw Water Use Plan	The Mandatory Recycled and Raw Water Use Plan indicates when recycled, raw, or non-potable water shall be used. Mitigation actions may involve determining the source of water supplied in order to preserve public health, safety and welfare; and the environment.	http://www.ranchowater.com/documentcenter/view/3344
Policy Resource	Riverside County/ City of Temecula Building Code	The Riverside County and City of Temecula Building Codes serve as the basis for the design and construction of buildings in their respective jurisdictions. Mitigation actions involve constructing Rancho Water facilities to the current code standard in order to provide buildings with increased hazard resilience.	https://temeculaca.gov/279/Codes-Standards
Policy Resource	Insurance Services Office (ISO) Public Protection Classification Rating	The ISO completes periodic analysis of the structural fire suppression delivery system for communities serviced by Rancho Water. Mitigations actions include identifying fire hydrants in need of additional water pressure for firefighting capabilities.	https://www.isomitigation.com/about-us/

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Plan Resource	District Water Facilities Master Plan	The Water Facilities Master Plan addresses how water, wastewater, and reclamation services are provided to existing and future customers within the District. Mitigation actions include identifying water supply sources to meet anticipated future demands; and the management of current water resources and facilities to supply water services to customers.	http://www.ranchowater.com/documentcenter/view/1802
Policy Resource	Stormwater Management Program Cities of Murrieta and Temecula; and Riverside County	Stormwater management programs regulate the discharges of runoff into a municipal separate storm sewer system to prevent pollutants from entering bodies of water. Mitigation actions include updating District policies in response to changes in applicable stormwater management programs to prevent the discharge of pollutants in bodies of water.	https://temeculaca.gov/796/Water-Quality-Management-Plan http://www.murrietaca.gov/departments/trash/special/stormwater.asp
Plan Resource	Rancho Water Capital Improvement Plan	The Capital Improvement Plan is a five-year projection of the District's capital funding requirements for planned capital projects such as the construction, repair, rehabilitation, or improvement of District assets. Mitigation actions may include the improvement or construction of District facilities to increase hazard resilience.	http://www.ranchowater.com/DocumentCenter/View/2875
Plan Resource	Rancho Water Emergency Operations Plan	The Emergency Operations Plan incorporates and coordinates all District facilities and personnel into an efficient organization capable of responding effectively to any emergency. Mitigation actions include the continuous testing and evaluation of response tactics, organization, and management to maximize effectiveness	Confidential

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Plan Resource	Rancho Water Sewer System Management Plan (SSMP)	The SSMP provides a plan and schedule to properly manage, operate, and maintain all portions of the District's wastewater collection system. Mitigation actions include the continuous testing and evaluation of tactics in response to sanitary sewer overflows to maximize effectiveness. Plan also identifies long term capital improvement projects for future hazard mitigation.	http://www.ranchowater.com/documentcenter/view/211
Plan Resource	Rancho Water Agricultural Water Management Plan (AWMP)	The AWMP serves to provide a reliable source of water to the agricultural customers of Rancho Water. Possible mitigation actions include improvement of District facilities to meet customer needs, changing of policy in response to environmental or legislative factors; and preparing for catastrophic emergencies.	http://www.ranchowater.com/documentcenter/view/3342
Plan Resource	District Water Shortage Contingency Plan (WSCP)	The WSCP discusses planned contingencies in the event of drought, water supply reductions, failure of a water distribution system, or emergencies impacting water reliability within the District. Mitigation actions include implementing water reduction policies in response to water shortages.	http://www.ranchowater.com/documentcenter/view/579

6.2 ADMINISTRATIVE AND TECHNICAL MITIGATION CAPABILITIES

The administrative and technical capabilities of Rancho Water, as shown in the table below, indicates the staff and resources available to support hazard mitigation activities at the District. Specific resources reviewed include those involving technical personnel such as planners/engineers with knowledge of land development and land management practices, engineers trained in construction practices related to building and infrastructure, planners and engineers with an understanding of natural or manmade hazards, floodplain managers, surveyors, and personnel with GIS skills and scientist familiar with hazards in the community.

Personnel Resources	Yes/No	Department/Position
Planner/engineer with knowledge of land development/land management practices	Yes	Director of Administration and Assistant General Manager-Engineering & Operations
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Assistant General Manager-Engineering & Operations, Director of Planning, Director of Engineering
Planner/engineer/scientist with an understanding of natural hazards	Yes	Assistant General Manager-Engineering & Operations, Director of Planning, Director of Operations
Personnel skilled in GIS	Yes	Datacenter Operations Supervisor and Director of Administration, Director of Planning
Full time building official	No	n/a
Floodplain manager	No	n/a
Emergency manager	Yes	Safety/Risk Officer, Director of Operations
Grant writer	Yes	Director of Administration
Other personnel	Yes	General Manager and Assistant General Manager
Warning systems/services (Reverse 9-1-1, outdoor warning signals)	No	Safety/Risk Officer, Director of Administration

6.3 FINANCIAL MITIGATION CAPABILITIES

The table below indicates the financial and budgetary tools available to Rancho Water, such as community development block grants; capital improvements project funding; authority to levy taxers for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and holding spending in hazard-prone areas.

Financial Resources	Accessible/ Eligible to Use (Yes/No)	Comments
Community development block grants	No	
Capital improvements project funding	Yes	
Authority to levy taxes for specific purposes	Yes	With voter approval
Fees for water, sewer, gas, or electric services	Yes	Water and Sewer
Impact fees for new development	Yes	
Incur debt through general obligation bonds	Yes	With voter approval
Incur debt through special tax bonds	Yes	With voter approval
Incur debt through private activities	No	
Withhold spending in hazard prone areas	n/a	
Other	n/a	

6.4 EDUCATION AND OUTREACH MITIGATION CAPABILITIES

Annually, Rancho Water conducts a Joint Agency Emergency Response Drill, which is a live drill with first responders and equipment responding to a simulated emergency event. Participants include Cal FIRE, Riverside County Fire, City of Temecula Fire, City of Temecula Police Department, Riverside County EMD, Riverside County Health Department, Riverside County Sheriff's Department, City of Murrieta Police Department, City of Murrieta Fire Department, and Rancho Water.

Rancho Water is a member of the Water/Wastewater Agency Response Network (Cal WARN) and ERNIE. The mission of Cal WARN and ERNIE is to support and promote statewide emergency preparedness, disaster response, and mutual assistance matters for public and private water and wastewater utilities.

6.5 FUNDING OPPORTUNITIES

Rancho Water has the same funding opportunities as Riverside County Operational Area. Please refer to Section 7.2 and Table 7-1 of the Riverside County Multi-Jurisdictional Hazard Mitigation Plan for a list of funding sources available.

SECTION 7.0 - MITIGATION STRATEGIES

7.1 GOALS, PRIORITIZATION, AND COST-BENEFIT ANALYSIS

The planning team created an overarching set of Goals to help define the Actions and Mitigation strategies for each identified hazard. Five primary goals were developed as follows:

1. Protect public safety and prevent loss of life and injury
2. Minimize and prevent damage to District assets and infrastructure
3. Minimize operational downtime and accelerate recovery after disasters
4. Reduce the cost of disaster response and recovery
5. Increase education, outreach, and awareness

To meet the defined goals above, a detailed list of Mitigation Strategies for the primary hazards was identified and ranked. Section 7.2 lists the mitigation activities and projects defined as part of this 2023 LHMP update and provides the timeframe, priority ranking, and potential funding source(s). The LHMP Project Team discussed each mitigation action to identify the priority, using the following as guidance:

- High Priority: Top District priority and is generally a vetted project concept. Benefits a large population, critical resource, or property at risk.
- Medium Priority: A less defined concept that requires additional study, benefits a lower amount of the service area or addresses a more moderate hazard.
- Low Priority: A concept that is not well defined, benefits a small group or lone facility, or protects against a lower-level hazard or threat.

A hazard mitigation plan must demonstrate that a process was employed which emphasized a review of benefits and costs when prioritizing the mitigation actions. The benefit-cost review must be comprehensive to the extent that it can evaluate the monetary as well as the non-monetary benefits and costs associated with each action. The benefit-cost review should at least consider the following questions:

- How many customers will benefit from the action?
- How large an area is impacted? Which areas would benefit from the action? How critical are the facilities that benefit from the action?
- Environmentally, does it make sense to do this project for the overall service area?

These questions were considered to help determine the appropriate mitigation actions and projects. Those actions that did not have adequate benefits to the District were not included.

For those mitigation actions that have or will become District Projects, a customized prioritization tool is utilized each year as part Rancho Water's 5-year Capital Improvement Plan (CIP) update. The projects recommended in the 5-Year CIP are prioritized utilizing the following process:

1. Establish CIP Prioritization Criteria (i.e., Benefit Criteria). Once established, the Benefit Criteria can be revisited from time to time to confirm if business or strategy of the District warrant revision to the Benefit Criteria. Once developed or revised, the Benefit Criteria receive a weighting. There are thirteen (13) Benefit Criteria and their respective weightings, which are identified as follows:

Criteria	Weighting
Maintain Regulated (Safety)	16%
Maintain Regulated (Service)	15%
New Regulations (Safety)	15%
New Regulations (Service)	15%
Maintain Discretionary Level of Service (LOS)	10%
Growth	9%
Resilience	6%
Financial	5%
Enhance Discretionary LOS	5%
Maintain Aesthetics	1%
Environmental Improvement	1%
Enhance Aesthetics	1%
Working Environment	1%
Sum	**100%**

2. Multi Criteria Prioritization. The weighted Benefit Criteria are then applied to the projects for prioritization. Each proposed project needs to have at least one benefit for it to be considered in the CIP. A project with at least one benefit (and no more than three) are then loaded into the District's Multi Criteria Prioritization (MCP) model under one or more of four investment drivers (maintaining an asset, maintain regulatory, enhancing service, and growth) and scored based on risk improvement and population impacted.

3. Derive Uptake Factor. An Uptake Factor is then applied to scale (normalize) the projects and reflect the number of customers (or other stakeholders) receiving the benefit. The distinctive feature of the Uptake Factor is to more clearly distinguish between large projects providing benefits to a large number of customers versus small projects providing benefits to a small number of customers. This step results in a total benefit score.

4. Review and Adjust Benefit Scores. This step is conducted collaboratively in a group consensus setting.

5. Calculate Efficiency. This step is performed within the modeling tool. The calculated efficiency value helps to understand how projects compare to other projects of similar cost in terms of total benefit delivered for the cost. This is an important step to help ensure that large projects that may have a broad system-wide benefit are not disadvantaged in the model.

6. Calculate Priority Score. This step is performed within the modeling tool. The priority value is on a 1 to 5 scale, with 1 being most advantageous (highest priority) and 5 being least advantageous (lowest priority).

7.2 MITIGATION ACTIONS

Table 7-1 indicates the mitigation actions/projects developed as part of this 2023 LHMP to address the potential hazards identified within this plan.

The District will evaluate future mitigation strategies as conditions change in regard to status of existing mitigation projects, the addition of new facilities, expansion of existing facilities, and as environmental and economic and local development conditions change.

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
1	Create and maintain fuel break around critical facilities within identified fire zones.	Wildland Fire	G1, G2, G3, G4	Field Services	1-3 years (recurring)	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
2	Improve Vail Dam remote monitoring/surveillance capabilities	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G3, G4, G5	Operations & Engineering	3-5 years	High	District Operating Fund and/or Future Hazard Request
3	Provide all applicable NIMS, SEMS, and ICS training to all District Management	Earthquake, Flood, Landslide, Extreme Weather, Geological Hazards	G1, G2, G3, G4	Electrical Services, Information Systems, Safety and Risk	1-3 years (initial/ refresher	High	District Operating Fund and/or Future Hazard Request
4	Permit and construct Vail Dam Seismic and Hydrologic Rehabilitation Project	Dam Failure, Earthquake, Flood, Extreme Weather, Geological Hazards	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Mitigation Grant Funds Request
5	Conduct groundwater banking study to identify suitable areas and required facilities to increase groundwater storage and banking.	Drought	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
6	Construct VDC regional pump station and chlorine contact tank to enhance local supplies and increase drought resiliency.	Drought	G1, G2, G3, G4	Operations & Engineering	1-3 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
7	Construct additional and replacement groundwater supply wells to provide additional water supply capacity and system reliability.	Drought	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
8	Rehabilitate existing wells to restore reliable capacity of groundwater production.	Drought	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
9	Expand recycled water distribution system to fully maximize future local supplies and/or offset non-local imported water used for irrigation	Drought	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
	Study, design, and implement an	Drought	G1, G2, G3, G5	Operations &	5-7 years	High	Capital Improvement

10	Indirect Potable Recharge and associated brine disposal facilities to fully maximize future local supplies.			Engineering			Fund and/or Future Hazard Mitigation Grant Funds Request
11	Expand Carancho pump station and construct a new Rapid Aerial Water Supply Tank to improve system redundancy and provide aerial access (i.e. helicopter drops) to water in high fire prone areas.	Drought, Wildland Fire	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
12	Design and construct hydroelectric generation facilities at the Upper VDC and Elm Street Pump Station to provide reliable power to critical facilities during power outages	Earthquake, Wildland Fire, Flood, Landslide, Extreme Weather	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
13	Identify and implement additional measures to harden power infrastructure including procurement and installation of new generators and/or security of power/backup power infrastructure	Earthquake, Wildland Fire, Flood, Landslide, Extreme Weather	G1, G2, G3, G5	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
14	Develop a District-wide leak detection program. Identify and source needed staff and equipment and make system repairs to avoid water loss.	Drought	G1, G2, G3, G4	Field Services	1-3 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
15	Replace aging pipeline infrastructure that has shown a propensity to fail to minimize system water loss	Drought	G1, G2, G3, G3	Safety and Risk, Field Services, Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
16	Assess facility access roads for landslide and mudslide susceptibility. Identify and implement needed mitigation activities.	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G2, G3, G4	Safety and Risk, Field Services, Engineering	5-7 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
17	Conduct study of liquefaction zones within District Service area and identify any applicable mitigation actions to protect facilities	Earthquake	G1, G2, G3, G4	Engineering	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
18	Develop Emergency Water Outage Supply plan and identify/purchase equipment required. Link GIS facilities map to County/State databases to identify risk and status of water facilities by area (safe, threatened, out of service, etc.) during Hazard events	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G3	Safety and Risk, Operations, Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
19	Continue developing a corrosion control program to improve the reliability and maintenance of pipelines and steel tank reservoirs.	Drought, Extreme Weather	G1, G4	Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
20	Develop lone worker safety program.	Dam Failure, Earthquake, Wildland Fire, Flood, Landslide, Extreme Weather	G1, G2, G3	Safety and Risk	3-5 years	Medium	Capital Improvement Fund and/or Future Mitigation Grant Funds Request

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
21	Develop site specific response plans for assets within the 100- and500-year flood plain zones	Dam Failure, Flood, Extreme Weather,	G1, G2, G3, G4	Safety and Risk	3-5 years	Medium	Capital Improvement Fund, Operating Fund, and/or Future Hazard Mitigation Grant Funds Request
22	Identify, establish, and test alternateOperations staging area and alternate Emergency Operations Center locations in the event Headquarters or the SRWRF are inoperable including, but not limitedto, land acquisition or purchase of mobile command trailer.	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G2, G3, G4	Safety and Risk, Field Services, Operations, Water Reclamation	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
23	Improve cell phone and radio coverage at locations where signalstrength is weak	Dam Failure, Earthquake, Wildland Fire, Flood, Landslide, Extreme Weather,	G1, G5	Engineering, Electrical Services, Information Systems	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
24	Install pan, tilt, zoom, cameras at critical District facilities within firezone for increased situational awareness	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards	G1, G2, G3, G4, G5	Safety and Risk, Information Technology, Electrical Services, Field Services.	1-3 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
25	Provide Safety Assessment Program training to engineering staff in order to conduct facility assessments post-earthquake.	Earthquake	G1, G3	Safety and Risk, Engineering	5-7 years	Medium	Operating Fund and/or Future Hazard MitigationGrant Funds Request

26	Consider alternate Districtstaging locations and/or alternate Headquarters location better suited to withstand emergencies, primarily flood impacts	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G2, G3	Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
27	Review, update, and exercise Vail Dam Emergency Action Plan. Includeand coordinate Dam exercise in withall applicable emergency management agencies/department (e.g., City of Temecula, Riverside County Emergency Management Department, Riverside County Sheriff's Office).	Dam Failure, Earthquake, Flood, Landslide, Extreme Weather, Geological Hazards	G1, G3, G4, G5	Safety and Risk	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
28	Add onsite energy generation andstorage/batteries to power criticalinfrastructure when grid power is not available.	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G2, G3, G4	Operations and Engineering	5-7 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
29	Conduct study and evaluate need toreplace Ace Bowen Reservoir No.1; Implement identified solution.	Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather	G1, G2, G3, G4	Operations & Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
30	Design and implement system valvereplacement projects to reduce water loss and improve recovery time in the wake of disasters or line breaks	Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards	G1, G2, G3, G4	Operations & Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
31	Design and construct indirect potable reuse project and brine lineto fully maximize future local supplies	Drought	G1, G2, G3, G4	Engineering	5-7 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request

32	Identify and implement solution to mitigate the effects of mudslides and debris flow at historically impacts site e.g., Los Caballos pump station and Tenaja reservoir	Wildland Fire, Flood, Landslide, Extreme Weather	G1, G2, G3, G4	Operations and Engineering	5-7 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
33	Assess District limitations in responding to pipeline breaks resulting from natural disasters. Identify and acquire needed staff and/or resources	Dam Failure, Earthquake, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards	G1, G2, G3, G4	Operations and Engineering	3-5 years	Medium	Capital Improvement Fund, Operating Fund, and/or Future Hazard Mitigation Grant Funds Request
34	Conduct vulnerability study for a District wide zero emissions fleet. Identify vulnerabilities, implementrecommended mitigation actions, and purchase related equipment/infrastructure	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G2, G3, G4	Safety and Risk, Field Services, Engineering	5-7 years	Medium	Capital Improvement Fund, Operating Fund, and/or Future Hazard Mitigation Grant Funds Request
35	Develop Emergency Response Planaddressing tactics to mitigate displaced employees and family in the wake of a regional natural disaster. Research and purchase needed equipment.	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G2, G3	Safety and Risk	3-5 years	Low	Operating Fund and/or Future Hazard MitigationGrant Funds Request
36	Develop, design, and install flood monitoring system on the MurrietaCreek Channel in order to detect critical flood conditions.	Dam Failure, Flood, Extreme Weather	G1, G2, G3, G4, G5	Safety and Risk	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
37	Identify alternative sources of gasoline and diesel during fuelshortages.	Dam Failure, Earthquake, Wildland Fire, Flood, Extreme Weather, Public Health Emergency	G1, G2, G3, G5	Safety and Risk, Field Services	5-7 years	Low	Operating Fund and/or Future Hazard MitigationGrant Funds Request

38	Establish effective Public Information Campaign(s) for WaterConservation	Drought	G5	Engineering	5-7 years	Low	Operating Fund and/or Future Hazard MitigationGrant Funds Request

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
39	Conduct Vail Lake dredging project to add additional reservoir storage capabilities to increase resilience to drought conditions	Drought	G1, G2, G3, G4	Engineering	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
40	Install floating cover on recycled water ponds to reduce evaporation	Drought	G1, G2, G3, G4	Engineering	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
41	Relocate pipelines parallel to active creek banks or construct pipeline protection improvements to increase resiliency to flood damage. (e.g., Meadowview pipelines, Vineyard Parkway sewer pipeline, Well No. 240 discharge line)	Flood, Extreme Weather	G1, G2, G3, G4	Operations & Engineering	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
42	Install new water meters for greater identification of losses/leaks increasing water conservation	Drought	G1, G2, G3, G4	Operations & Engineering	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request

SECTION 8.0 - PLAN IMPLEMENTATION AND MAINTENANCE PROCESS

Rancho Water will monitor and evaluate the District's LHMP annually, with an official update every five years. The District will assess, among other things, whether:

- The goals and objectives address current and expected conditions
- The nature, magnitude, and/or type of risks have changed
- The current resources are appropriate for implementing the plan
- There are implementation problems, such as technical, political, legal, or coordination issues with other agencies
- The outcomes have occurred as expected (a demonstration of progress)
- The agencies and other partners participated as originally proposed

If the District discovers changes have occurred during the evaluation, updates will be made to the LHMP *Revision Page*, and Riverside County EMD will be notified to update Rancho Water's Annex. Rancho Water will adopt the updated or evaluated plan within five years of the adoption of the previous plan.

Rancho Water's Safety/Risk Officer will be in charge of the monitoring, evaluation, and updating of the District's LHMP.

Refer to table 7-1 which references the Capital Improvement Plan which is the District's vehicle for approval and funding of projects, initiatives, and programs that support the LHMP.

SECTION 9.0 - INCORPORATION INTO EXISTING PLANNING MECHANISMS

Rancho Water's LHMP has several planning mechanisms that will continue to incorporate, or work in conjunction with, the following District plans, as did the previous LHMP:

- Emergency Operations Plan
- Urban Water Management Plan
- Capital Improvement Plan
- Water Shortage Contingency Plan

Rancho Water has a safety element in its Emergency Operations Plan that includes a discussion of mitigation activities for fire, earthquake, flooding, and additional hazards. The goals of the LHMP are reflected with in these discussions. Additionally, as local, state, and federal regulations change, staff will draft revisions for the plan subject to approval from the Board of Directors by the way of public meetings during which comments are sought and considered from the public. This plan is compliant with the National Incident Management System (NIMS) and the Standard Emergency Management System (SEMS).

SECTION 10.0 - CONTINUED PUBLIC INVOLVEMENT

The District will provide for continued public involvement with the LHMP over the next five years through website postings of activities relating to the LHMP and solicit public comment through the same avenue. Should District management or the Board of Directors indicate the desire for public meetings, such meeting dates will be posted inviting the public to the meeting.

APPENDIX A – PUBLIC NOTICES

AGENDA

JOINT REGULAR MEETING
OF THE
PLANNING AND ADMINISTRATION COMMITTEE
AND SPECIAL MEETING OF THE BOARD OF DIRECTORS
OF THE
RANCHO CALIFORNIA WATER DISTRICT

Board Room
Rancho California Water District
42135 Winchester Road
Temecula, California

Thursday, January 19, 2023
8:30 AM

Members of the public may participate in this meeting by attending in person at 42135 Winchester Road, Temecula, CA 92590, or virtually, as identified below:

To join the meeting via computer or smart device, go to <<https://zoom.us/join>> and enter the following Meeting ID and Password: **Meeting ID: 846 2728 3222| Password: 42135.** If you would like to join by calling in, dial **(669) 900-6833** and enter the same Meeting ID and Password: **Meeting ID: 846 2728 3222 | Password: 42135.**

Any member of the public wishing to make any comments to the Board may do so in person, via the Zoom platform by utilizing the "Raise Hand" function, or if you have dialed in, enter *9 on your phone, and you will be identified by your phone number when it is your turn to speak. You may also submit comments in writing before the start of the meeting by visiting https://ranchowater.com/comments.

CALL TO ORDER

ROLL CALL

ADDITIONS TO AGENDA

Items may be added to the Agenda in accordance with Section 54954.2(b)(2) of the Government Code (Brown Act), upon a determination by a two-thirds vote of the members of the legislative body present at the meeting, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the Rancho California Water District after the Agenda was posted.

APPROVAL OF AGENDA

PUBLIC COMMENT

Any person may address the Committee at this time upon any subject not identified on this Agenda but within the jurisdiction of the Rancho California Water District. Please note that for items not listed on the agenda, the Brown Act imposes limitations on what the Committee may do at this time. The Committee may not take action on the item at this meeting. As to matters on the Agenda, persons will be given an opportunity to address the Committee when the matter is considered. If you wish to speak during public comment, please fill out a "Speaker Request Form" and give it to the Recording Secretary. When the Committee Chairman calls your name, please immediately step to the podium and begin by giving your name and address for the record. Each speaker will be given three (3) minutes to address the Committee.

1. Update on State Legislative and Federal Lobbying Activities
2. Consider Ratifying Appointments to Rancho California Water District's Pechanga Ad Hoc Committee
3. Review and Approve National, State, and Local Organizations per Administrative Code Section 3.13.3 Other Occurrences Which Qualify for Per Diem Compensation
4. Consider Approval of Rancho California Water District's 2023 Legislative Priorities
5. Review of Multi-Jurisdictional Local Hazard Mitigation Plan Update
6. Update on Customer Service Activity
7. Update on Grants and Water Use Efficiency Efforts
8. Update on Outreach and Educational Efforts
9. Presentation on Human Resources Activities
10. Adjournment

This Committee meeting is also noticed as a special meeting of the Board of Directors because a quorum of the Board may be present. Members of the Board who are not members of the Committee may attend and participate in the meeting, but only members of the Committee may make, second, or vote on any motion or other action of the Committee. Any actions taken pursuant to this agenda will be actions within the purview of the Committee and shall be approved by an affirmative vote of a majority of the quorum of the Committee. The Committee is not empowered to act for or on behalf of the Board or the District unless exercising delegated authority from the Board. Any actions taken by the Committee shall be deemed recommendations of the Committee for future consideration by the Board at a separately noticed regular or special meeting of the Board of Directors. The Board of Directors retains all powers, privileges, and duties to exercise and perform the business of the District.

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, as required by Section 202 of the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to the District Secretary at (951) 296-6900 at least 48 hours before the meeting, if possible.

Any writings or documents provided to a majority of the members of the Board of Directors regarding any item on this agenda will be made available for public inspection at the District's Administrative Headquarters Building located at 42135 Winchester Road, Temecula, California, during normal business hours.

Board Members of the Rancho California Water District
Planning and Administration Committee

Brian Brady, Chairman
J.D. Harkey, Member
William Plummer, Member
John Hoagland, Alternate

Rancho Water

COMMITTEE INFORMATION

PLANNING AND ADMINISTRATION COMMITTEE

ITEM 5: **REVIEW OF MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN UPDATE**

RESPONSIBLE/LEAD STAFF MEMBER(S):

Assistant General Manager-Engineering & Operations, Jake Wiley

RECOMMENDATION:

This item is presented for the Engineering and Operations Committee's information.

DISCUSSION:

In 2017, Rancho California Water District's (District) Board of Directors adopted the latest update to the District's Local Hazard Mitigation Plan (LHMP). The 2017 LHMP was an update to the original documents prepared in 2005-2006 and updated in 2011. The plans are scheduled to be updated every five years as required by the Federal Emergency Management Agency (FEMA) and involves working with the Riverside County Fire Department Office of Emergency Services (OES). Riverside County Fire Department OES includes these updated local plans within the Master Riverside County Multi-Jurisdictional LHMP and forwards them to the California Governor's Office of Emergency Services (Cal OES) and FEMA for final approval.

The requirement for a Multi-Jurisdictional LHMP is a result of the Disaster Mitigation Act of 2000 and Title 44 Code of Federal Regulations Emergency Management and Assistance, Part 201 Mitigation Planning. Local governments must have a mitigation plan approved pursuant to the section in order to receive Hazard Mitigation Grants pre- and post-disaster. Local governments consist of any county, municipality, city, town, township, public authority, school district, or special district. The District has benefited from the plan in the past as it was an essential requirement to secure FEMA funding for the design and construction of the Vail Dam Rehabilitation project.

Over the last six months, working with the Riverside County Emergency Management Department (EMD), a team consisting of the engineering department, the District's safety officer, the public information office, the finance department, the administration department, and the operations department completed a draft of the update and revision of the District's

2023 LHMP. The team plans to provide a copy of the updated plan to the Riverside County EMD on February 3, 2023. Over the following, six to eight months, the District's 2023 LHMP update will be reviewed by the Riverside County EMD, Cal OES, and FEMA. The Riverside County EMD and the District will complete any required corrections or revisions. Once all three agencies have accepted the LHMP, FEMA will send the District a letter advising the acceptance of the District's 2023 LHMP. At that time, staff will request the District's Board to adopt the District's 2023 Multi-Jurisdictional LHMP by formal resolution and send a copy of the resolution to the Riverside County EMD.

ALTERNATIVES:

Not applicable

FISCAL ANALYSIS:

Not applicable

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

A. Local Hazard Mitigation Plan 2023 Final Draft

APPENDIX B – PLAN REVIEW TOOL/CROSSWALK

SEE ATTACHMENTS

Riverside County EMD will complete the crosswalk upon review of the updated LHMP prior to transmitting to Cal OES and FEMA. EMD will provide a copy to make any corrections on the plan if needed and as indicted on the crosswalk.

Appendix D. Water Conservation Policy

Water Conservation Policy

Chapter History

Prepared in 2009 in Response to Metropolitan Water District of Southern California's Request for Conservation Compliance

Adopted May 14, 2009, Resolution No. 2009-5-4
Revised August 14, 2014
Revised March 12, 2015
Revised June 11, 2015
Revised June 10, 2021
Revised June 11, 2026

The current Water Conservation Policy for the Rancho California Water District is enclosed.

Rancho California Water District
WATER CONSERVATION POLICY

Revised: June 11, 2026 –
Ordinance No. 2021-6-X
Revised June 10, 2021–
Ordinance No. 2021-6-1
Revised June 11, 2015 –
Ordinance No. 2015-6-1
Revised: March 12, 2015–
Ordinance No. 2015-3-1
Revised: August 14, 2014–
Resolution No. 2014-8-1
Revised: June 11, 2009 –
Resolution No. 2009-6-19
Revised: July 10, 2008 –
Resolution No. 2008-7-4
Adopted May 14, 2009

Prepared in 2009 in Response to Metropolitan Water District of Southern California's Request for Conservation Compliance

Rancho California Water District
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Section 1. Findings and Declaration of Policy

The Rancho California Water District (District) finds and determines that because of the prevailing conditions in the State it is necessary and appropriate for the District to adopt, implement, and enforce a Water Conservation Policy to ensure sufficient water for human consumption, sanitation, and fire protection. The District further finds the waste or unreasonable use, or unreasonable method of use of water shall be prevented and that water conservation practices shall be encouraged at all times.

In times of drought or water supply cutbacks, provisions of this Policy may be modified in accordance with State of California Regulations, the Metropolitan Water District of Southern California's Water Surplus and Drought Management and Water Supply Action Plans, as well as Rancho California Water District's Water Shortage Contingency Plan (WSCP). This Policy is in effect at all times and defers updates and implementation strategies, regarding water conditions and supplies to the WSCP for timely communications and media outreach when stage alerts are executed.

Section 2.General Provisions

In accordance with state law and Best Management Practices, it shall be a violation of this Policy at any time to make, cause, or permit the use of water for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner constituting waste. Customers shall abide by all requirements outlined in the applicable Shortage Stage of the WSCP including, but not limited to the following requirements at all times:

1. Refrain from hosing off sidewalks, driveways, and other hardscapes.
2. Refrain from washing vehicles (autos, trucks, trailers, motorhomes, boats, or other vehicles) with hoses not equipped with a shut-off nozzle. Use a hose equipped with an automatic shutoff valve or other device that causes it to cease dispensing water immediately when not in use.
3. Refrain from using non-recirculated water in a fountain or other decorative water feature.
4. Refrain from watering ornamental turf on public street medians,
5. Refrain from watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation.
6. Repair faucets, toilets, pipes and other potential sources of water leaks.
7. Irrigate landscape only between 6 p.m. and 9 a.m. This provision does not apply when:
    1. Manually watering during the establishment period of a new landscape;
    2. Supervised spot watering is done to address landscape issues;
    3. Temperatures are predicted to fall below freezing;
    4. Testing/repairing an irrigation system;
    5. Using drip and point-to-point irrigation systems; and
    6. A longer watering window is needed due to system constants
8. When installing plumbing fixtures, use low-flow devices, except for those that require high-flow fixtures for health and/or sanitary reasons. Where possible, install pool and spa covers to minimize water loss due to evaporation during non-operating days.

9. When installing new landscaping, refer to the Water Use Classification of Landscape Species (WUCOLS). Plant low-water California Friendly® Landscapes. Non-functional turf areas are not recommended. Turf-lined channels are only permitted when justified by environmental regulations.

10. Pursuant to Water Code section 10608.14, the use of potable water for the irrigation of nonfunctional turf located on commercial, industrial, and institutional properties, other than a cemetery, and on properties of homeowners' associations, common interest developments, and community service organizations or similar entities is prohibited as of the following dates:

    1. All properties owned by the Department of General Services, beginning January 1, 2027.
    2. All properties owned by local governments, local or regional public agencies, and public water systems, except those specified in paragraph (5), beginning January 1, 2027.
    3. All other institutional properties and all commercial and industrial properties, beginning January 1, 2028.
    4. All common areas of properties of homeowners' associations, common interest developments, and community service organizations or similar entities, beginning January 1, 2029.
    5. All properties owned by local governments, local public agencies, and public water systems in a disadvantaged community, beginning January 1, 2031, or the date upon which a state funding source is made available to fund conversion of nonfunctional turf on these properties to climate-appropriate landscapes, whichever is later.

11. Notwithstanding subdivision (10), the use of potable water is not prohibited to the extent necessary to ensure the health of trees and other perennial nonturf plantings, or to the extent necessary to address an immediate health and safety need.

12. The State Water Resource Control Board may, upon a showing of good cause for reasons including economic hardship, critical business need, and potential impacts to human health and safety, postpone a compliance deadline by up to three years for certain persons, institutions, and businesses, and may create a form to be used for compliance certification by property owners.

13. The District shall communicate the requirements of this section to affected customers on or before January 1, 2027.

Section 3. Administrative Fines

All persons with excessive runoff that causes water to flow from property into any gutters, streets, or alleys are subject to an immediate fine of $50. Those in violation of Section 2 General Provisions of this Policy are subject to the following:

1. For a first violation, the District may use a door hanger to alert the customer of the violation and shall issue a written notice of fact of such violation to the customer. The customer shall then be allowed a period of 10 days following issuance of the written notice to correct the violation described therein before a second violation will be issued.

2. For a second violation, the District shall issue a written notice of fact of such violation to

the customer. The customer shall then be allowed a period of 10 days following issuance of the written notice to correct the violation described therein before a third violation will be issued.

3. For a third violation, the District shall issue a written notice of fact of such violation to the customer when a second violation has not been corrected within a period of 10 days following issuance of the second violation notice. A fine in the amount of $50.00 shall be added to the customer's water bill upon issuance of a third violation. The customer shall be allowed a period of 5 days following issuance of the written notice to correct the third violation before a fourth violation will be issued.

4. For a fourth violation the District shall issue a written notice of fact of such violation to the customer when a third violation has not been corrected within a period of 5 days following issuance of the third violation notice. A fine in the amount of $100.00 shall be added to the customer's water bill upon issuance of a fourth violation. The customer shall be allowed 5 days following issuance of the written notice to correct the fourth violation before a fifth violation will be issued.

5. For a fifth violation the District shall issue a written notice of fact of such violation to the customer when a fourth violation has not been corrected within a period of 5 days following issuance of the fourth violation notice. A fine in the amount of $200.00 shall be added to the customer's water bill upon issuance of a fourth violation. The customer shall be allowed 5 days following issuance of the written notice to correct the fifth violation before a sixth violation will be issued.

6. For a sixth violation, the District shall issue a written notice of fact of such violation to the customer when the fifth violation has not been corrected within a period of 5 days following issuance of the fifth violation notice. A fine of $500.00 per day shall be added to the customer's water bill following the issuance of the sixth violation notice until the violation is corrected.

Customers shall pay all water bills and fines in accordance with the due dates on their water bills. An Appeals Process is offered to customers that disagree with fines outlined in this section of the Policy. If the appeal is upheld in favor of the customer, appropriate monies will be refunded. Details of the appeals process are included in Section 4 of this Policy.

The District shall use the revenues derived from the implementation of this section of the Policy for water use efficiency programs and rebates.

Section 4. Appeals Process

Any customer may appeal the imposition of fines of this Policy, by filing a written request with the District's Water Use Efficiency Department for an appeals hearing. The District must receive the request within 30 days of the final notice. A request for a hearing shall set forth, in detail, all facts supporting the request.

The District's Water Use Efficiency Department shall, within 15 days of receiving a request for an appeal hearing provide written notice to the customer of the hearing date, time, and place. The hearing date shall not be more than 30 days from the mailing of such notice by certified mail, unless a later date is agreed to by the customer.

At the hearing, a Water Use Efficiency Department representative will represent the District. The customer will have the opportunity to present information supporting his or her position concerning the required irrigation evaluation or penalty charges. After the hearing, the Water Use Efficiency Department shall deliver a written report to the General Manager setting forth findings of fact, conclusions, and a recommendation on whether to uphold, modify, or reverse the original fines. Upon receipt of the written report, the General Manager shall issue his decision within 15 calendar days of the hearing. The written decision of the General Manager shall be sent to the customer by certified mail. The General Manager's decision shall be final on the 16th day after it is mailed, unless a request for a hearing is filed with the Board of Directors no later than 5:00 p.m. on the 15th day following such mailing.

Any customer may appeal a decision made by the General Manager, prior to the date that the General Manager's order becomes final, by filing a written request for a hearing with the Board of Directors. The request for the Board of Directors' hearing shall set forth in detail all the issues in dispute and all facts supporting the request. No later than 30 days after receipt of the request for a hearing, the Board of Directors shall either set the matter for a hearing, or deny the request for the hearing. Whether to grant or deny a request for a hearing on an appeal to the General Manager's decision shall be within the sole discretion of the Board of Directors.

If required, a hearing shall be held by the Board of Directors within 30 days of the date the request for a hearing was granted, unless a later date is agreed to by the customer and the Board of Directors. The Board of Directors shall make a determination whether to uphold, modify, or reverse the General Manager's decision. The order of the Board of Directors shall be final upon its adoption. The written decision and order of the Board of Directors shall be sent to the customer by certified mail within 15 days after the close of the hearing.

If the matter is not heard within the required time, due to actions or inactions of the customer or the Board of Director's decision to deny the request for the hearing, the General Manager's decision shall be final.

Section 5. Variance Conditions

A variance may be issued by the District, in writing, to grant a temporary variance for water uses otherwise prohibited under this Policy if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance, and under the following conditions:

1. Compliance with this Policy cannot be technically accomplished during the duration of a water supply shortage or other condition for which the Policy is in effect.

2. Alternative methods or technology used as part of District sanctioned trial or test study can be implemented which will achieve the same level of reduction in water use.

3. Doctor-approved health circumstances, illness or injury will be considered on a case-by-case basis.

4. No variances will be issued, beginning in Shortage Stage 3b of the WSCP, for filling swimming pools, establishing or expanding a landscape area, leaks not repaired within 48 hours, and existing outdoor water budgets.

5. No variances will be issued, beginning in Shortage Stage 3b of the WSCP, for filling swimming pools, establishing or expanding a landscape area, leaks not repaired within 48 hours, and existing outdoor water budgets.

6. Variances will be considered for health and safety issues only in Shortage Stages 4 and 5.

A written variance shall be accepted by the District, and may be denied at the sole discretion of the District. The following information must be provided:

1. Name, contact phone number, service address, and customer account number of petitioner.

2. Purpose of water use (e.g., domestic, commercial, agriculture).

3. Specific provision(s) of the Policy from which the petitioner is requesting relief.

4. Detailed statement as to how the provision of the Policy adversely affects the petitioner or what damage or harm will occur.

5. Description of the relief requested.

6. Period of time for which the variance is sought.

7. Any alternative water use restrictions (e.g., indoor use) that the petitioner is taking or proposes to take to meet the intent of the Policy.

Section 6. Technical Assistance

The District will provide technical assistance to customers who wish to improve water use efficiency. This technical assistance may include the provision of materials a customer can use to perform a self-assessment and a "Water Use Efficiency Evaluation" conducted by the District. Customers may request these services by contacting the District's Water Use Efficiency Department. Receiving technical assistance from the District does not preclude customers from any fines assessed for violations.

Section 7.Definitions of Terms

Appellant - means the customer appealing a decision of the District for relief from the requirements of this Policy.

Appeal Process - refers to a set of procedures allowing an appellant the opportunity to present facts and details, supporting his or her position concerning fines of this policy.

Best Management Practices – defines the best and most proven water conservation methods for urban water users in California.

Board of Directors - means the Board of Directors of the Rancho California Water District.

California Friendly® Landscapes – refers to landscape that features low-water using plants, state-of-the-art irrigation and controllers, sustainable landscaping techniques/ maintenance plan.

Common Area – means that portion of a common interest development or of a property owned or managed by a homeowners' association or a community service organization or similar entity that is not assigned or allocated to the exclusive use of the occupants of an individual dwelling unit within the property.

Common Interest Development – means any of the following: (a) a community apartment project; (b) a condominium project; (c) a planned development; (d) a stock cooperative.

Community Service Organization or Similar Entity – means a nonprofit entity, other than an association, that is organized to provide services to residents of the common interest development or to the public.

Community Space – means an area designated by a property owner or a governmental agency to accommodate human foot traffic for civic, ceremonial, or other community events or social gatherings.

Customer - means any person, firm, partnership, association, corporation, or local political entity using water obtained from the water system of Rancho California Water District.

Disadvantaged Community – means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

District – refers to Rancho California Water District.

Evaluation Check List – will differ between the residential customer and the commercial customer. The appropriate Evaluation Check List will be provided by District to the customer for the purpose of evaluating the cause of water waste.

Excessive Runoff - over irrigation of landscaped areas, leaks, or any other type of action that would cause water to flow into any gutter, streets, or alleys.

Functional Turf – means a ground cover surface of turf located in a recreational use area or community space. Turf enclosed by fencing or other barriers to permanently preclude human access for recreation or assembly is not functional turf.

Homeowners' Association – means a nonprofit corporation or unincorporated association created for the purpose of managing a common interest development.

Nonfunctional Turf – means any turf that is not functional turf, and includes turf located within street rights-of-way and parking lots.

Potable Water – means water that is suitable for human consumption.

Recreational Use Area – means an area designated by a property owner or a governmental agency to accommodate human foot traffic for recreation, including, but not limited to, sports fields, golf courses, playgrounds, picnic grounds, or pet exercise areas.

Variance Conditions – refers to a conflict requesting a temporary variation for water use.

Waste - means any unreasonable or non-beneficial use of water, or any unreasonable method of use of water, including, but not limited to, the specific uses prohibited and restricted by this policy as hereinafter set forth.

Water Use Classification of Landscape Species (WUCOLS) – is a guide to help landscape professionals identify irrigation water needs of landscape species. It can be used either for the selection of species or to assist in developing irrigation schedules. It is not intended to be used as a required or approved list by RCWD for selection of plant species – the WUCOLS guide is provided by District upon request.

Water Use Efficiency Evaluation Report – is a standard of site data collections to efficiently evaluate the performance of an irrigation system.

In times of drought or water supply cutbacks, provisions of this Policy may be modified in accordance with the Metropolitan Water District of Southern California's Water Surplus and Drought Management Plan and/or Water Supply Allocation Plan, as well as Rancho California Water District's Water Shortage Contingency Plan, or action taken by the Board of Directors.



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Rancho Water

COMMITTEE ACTION

ENGINEERING AND OPERATIONS COMMITTEE

April 30, 2026

ITEM 1.D: **Review of 2025 Urban Water Management Plan (UWMP) and Consider Approval of Public Hearing**

RESPONSIBLE/LEAD STAFF MEMBER(S):

Wendie Heie, P.E., Principal Engineer

RECOMMENDATIONS:

This item is presented for the Engineering and Operations Committee's (Committee) review and approval. The Committee is asked to review the 2025 Urban Water Management Plan (UWMP) and approve the scheduling of a public hearing for final adoption on June 11, 2026, by the Board of Directors.

DISCUSSION:

Rancho California Water District's (Rancho Water/District) 2025 Urban Water Management Plan has been prepared in compliance with Sections 10610 through 10656 of the Urban Water Management Planning Act (Act), which was added by Statute 1983, Chapter 1009, and became effective January 1, 1984. The Act, as amended, requires urban water suppliers to develop and adopt a UWMP every five (5) years. The 2025 UWMP revises and replaces the District's 2020 UWMP and incorporates changes enacted by legislation since that time.

The primary purpose of the UWMP is to assess the long-term reliability of the District's water supplies relative to projected demands. This five-year planning cycle ensures that water suppliers and the public maintain a current, transparent understanding of water supply conditions, anticipated challenges, and strategies to manage reliability risks over a 20- to 25-year planning horizon. UWMPs are also a prerequisite for eligibility for State grant and loan funding.

The 2025 UWMP was prepared in consultation with Rancho Water's wholesale water agencies, Eastern Municipal Water District (EMWD) and Western Municipal Water District (Western Water), along with the Metropolitan Water District of Southern California (MWD), the cities of Murrieta and Temecula, the County of Riverside, the Pechanga Band of Luiseño Mission Indians, and the Santa Margarita River Watershed Watermaster. Notices of intent to update the UWMP were mailed to these entities in November of 2025, in accordance with Water Code Section 10621(b). The 2025 UWMP will be submitted to the California Department of Water Resources (DWR) by the statutory deadline of July 1, 2026.

The fundamental finding of this UWMP is that in a normal year, a single-dry year, and a multiple-dry year, Rancho Water has adequate supplies for customers. The Five-Year Drought Risk

Assessment, which evaluates near-term supply adequacy for the period 2026 through 2030, confirmed that with implementation of the District's planned Mid-Pauba Groundwater Banking Project, Rancho Water has sufficient supplies to meet demands even under a consecutive five-year drought scenario.

The UWMP evaluates the many factors influencing water demands, including population, land use, social and demographic characteristics, climate, and customer type. The population within the service area is projected to grow from approximately 157,000 in 2025 to 185,000 by 2050. Despite this growth, per capita water use has declined dramatically over the past two decades, from over 400 gallons per capita per day (GPCD) in the late 1990s to approximately 204 GPCD in 2025, due to conservation programs, plumbing efficiency standards, and the expansion of recycled water systems.

Demands

Chapter 2 of the UWMP projects water demands from 2030 to 2050 under normal/average, single-dry, and five-year multiple-dry year conditions. Total water demand is projected to grow from approximately 60,000 acre-feet (AF) in 2025 to approximately 80,000 AF by 2050 in a normal year, and up to approximately 83,000 AF in a single-dry year by 2050.

Water Conservation and Efficiency Targets

The review of projected demands in this UWMP demonstrates that:

- Rancho Water is meeting the conservation targets of the Water Conservation Act of 2009 (SBx7-7, or "20 by 2020"), having achieved a reduction in per capita water use well in excess of the 20 percent target.
- Rancho Water meets the California State Water Board water loss performance standards ahead of the 2028 requirement.
- Rancho Water is on track to meet the "Making Water Conservation a California Way of Life" regulations, which establish long-term efficient water use standards for residential and commercial customers.

Water Supplies

Chapter 3 of the UWMP evaluates the water supplies available to Rancho Water over the period 2030 to 2050. Rancho Water's supply portfolio consists of three primary sources: imported water purchased through EMWD and Western Water, native groundwater, and recycled water. Each supply source is evaluated for availability, potential limitations (water quality, hydrology, and climate), and projected reliability in average, single-dry, and multiple-dry year conditions. To further enhance supply resilience, the District is actively implementing a Groundwater Banking Project to expand existing groundwater banking capacity by adding new recharge basins and production wells.

Recycled Water

Chapter 4 provides details on current and projected recycled water use. Rancho Water receives recycled water from the Santa Rosa Water Reclamation Facility (SRWRF), operated on behalf of the

Santa Rosa Regional Resources Authority, and purchases additional recycled water from EMWD's Temecula Valley Regional Water Reclamation Facility (TVRWRF).

Water Service Reliability Assessment

Chapter 5 evaluates the ability to meet projected water demands with anticipated supplies in normal/average, single-dry, and multiple-dry years through 2050. As documented in Chapter 5, with planned supplies, Rancho Water has adequate supplies to meet demands under all evaluated conditions. Even in the fifth year of a consecutive drought, projected supplies exceed demands, maintaining a positive surplus in all planning years.

Demand Management Measures

Chapter 6 summarizes the demand management measures (DMMs) that Rancho Water has implemented and plans to continue, including: water waste prohibition enforcement, full Automated Metering Infrastructure (AMI) deployment, a Budget-Based Tiered Rate Structure, public education and outreach, distribution system water loss management, and participation in wholesale agency conservation programs. Rancho Water customers have already achieved demand reductions sufficient to meet the long-term water use objectives of Making Water Conservation a California Way of Life.

Water Shortage Contingency Plan

Chapter 7 of the UWMP summarizes the updated Water Shortage Contingency Plan (WSCP), which is provided in full as Appendix G of the UWMP. As required by Water Code Section 10632, the WSCP has been updated concurrently with this UWMP cycle. The WSCP describes shortage stages corresponding to progressively more severe supply shortfalls (up to 10, 20, 30, 40, 50, and greater than 50 percent shortages) and the corresponding mandatory and voluntary response actions available at each stage, including supply augmentation, demand reduction programs, rate adjustments, and moratoriums on new connections. Consistent with the approach taken for the 2020 UWMP cycle, the District has elected to adopt the 2025 WSCP at the same Board hearing as the 2025 UWMP.

ALTERNATIVES:

Do not approve the 2025 Urban Water Management Plan. However, this is not recommended as an update to the 2025 UWMP is a regulatory requirement under Sections 10610 through 10656 of the Urban Water Management Planning Act (Act).

FISCAL ANALYSIS:

Not applicable

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

1. Draft 2025 Urban Water Management Plan
2. Draft 2025 Urban Water Management Plan Appendices



April 2026

Rancho California Water District

2025 Urban Water Management Plan

PUBLIC DRAFT

Prepared by

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Rancho California Water District 2025 Urban Water Management Plan

PUBLIC DRAFT

April 23, 2026

Prepared for

Rancho California Water District
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K/J Project No. 2544231*00

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Acronyms

The following abbreviations and acronyms are used in this report.

AB	Assembly Bill
Act	Urban Water Management Planning Act
AF	acre-feet
AFY	acre-feet per year
AMI	Advanced Metering Infrastructure
AWTF	Advanced Water Treatment Facility
AWWA	American Waterworks Association
BBTR	Budget Based Tiered-Rate Structure
BMPs	Best Management Practices
CCF	Hundred Cubic Feet
cfs	cubic feet per second
CIMIS	California Irrigation Management Information System
CWRMA	Cooperative Water Resources Management Agreement
COG	Council of Governments
CWUO	California Urban Water Use Objective
DDW	State Water Resources Control Board Division of Drinking Water
District	Rancho California Water District
DMMs	Demand Management Measures
DSOD	Division of Safety of Dams
DWR	Department of Water Resources
EMWD	Eastern Municipal Water District
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
ETo	evapotranspiration
EVMWD	Elsinore Valley Municipal Water District
F	Fahrenheit
GIS	Geographic Information System
GPCD	gallons per capita per day
GWMP	Groundwater Management Plan
HCD	State Department of Housing and Community Development
HCF	hundred cubic feet
IORP	Interim Operation Restriction Plan
IRP	MSWDSC Integrated Resources Plan

JPA	Joint Powers Authority
kWh	kilowatts
MG	million gallons
mg/L	milligrams per liter
MGD	million gallons per day
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
MYT	MyWaterTracker software platform
NPDES	National Pollutant Discharge Elimination System
Pechanga	Pechanga Band of Luiseño Mission Indians
PFAS	Per- and polyfluoroalkyl substances
PFHxA	perfluorohexanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonate
PWS	Public Water System
RCWD	Rancho California Water District
RHNA	Regional Housing Needs Allocation
RWQCB	Regional Water Quality Control Board
SBX7-7	Senate Bill 7 of Special Extended Session 7
SCADA	Supervisory Control and Data Acquisition
SCAG	Southern California Association of Governments
Sf	square feet
SGMA	Sustainable Groundwater Management Act
SRRRA	Santa Rosa Regional Resources Authority
SRRWD	Santa Rosa Ranches Water District
SRWRF	Santa Rosa Water Reclamation Facility
SWP	State Water Project
SWRCB	State Water Resources Control Board
TAZ	Transportation Analysis Zone
TDS	Total Dissolved Solids
TVRWRF	Temecula Valley Regional Water Reclamation Facility
UWMP	Urban Water Management Plan
VDC	Valle de los Caballos
WFMP	Water Facilities Master Plan
Western Water	Western Municipal Water District
WSAP	MWD Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan
WUCOLS	Water Use Classification of Landscape Species

Executive Summary

Why Prepare an Urban Water Management Plan?

An Urban Water Management Plan (UWMP) is a planning tool that generally guides the actions of water management agencies. It provides managers and the public with a broad perspective on water supply issues. It is not a substitute for project-specific planning documents. The State of California requires submittal of an UWMP every five years.

- Required of suppliers that provide 3,000 or more acre feet per (AFY) year or with more than 3,000 connections
- State Requirement for UWMPs are found in two sections of California Water Code, §10610-10656 and §10608.
- Necessary to receive State grant and loan funding

What Region Does this Cover?

RANCHO CALIFORNIA

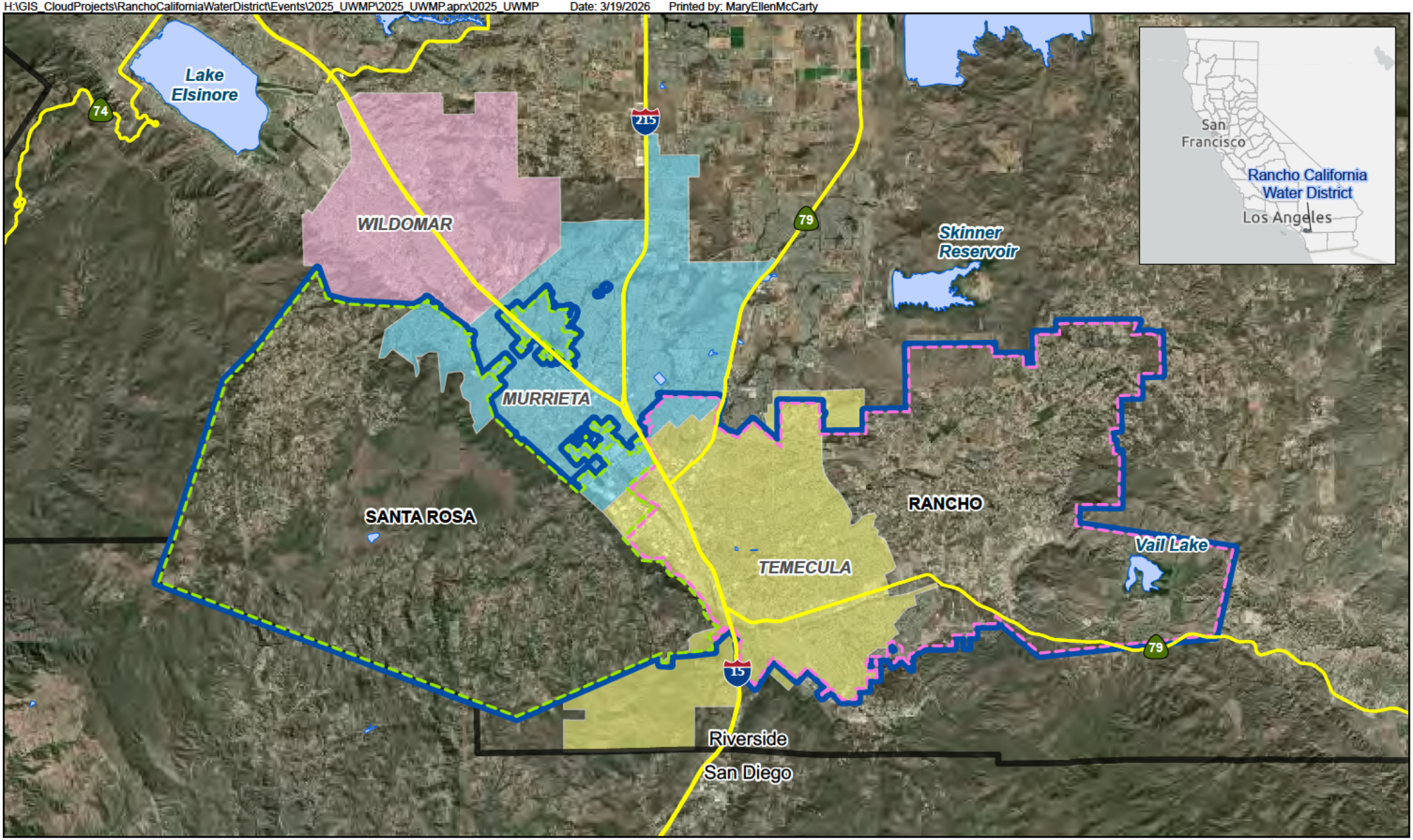
Rancho California Water District (Rancho Water) serves approximately 157,000 residents across Temecula, Murrieta, and portions of Riverside County. The District is located approximately 85 miles southeast of Los Angeles and 65 miles north of San Diego, and its current service area is bounded on the southeast by the Santa Ana Mountains and on the northeast by Gavilan Hills. The total gross acreage within the District's service area is approximately 99,000 acres (154.7 square miles). See Figure ES-1.

Rancho Water's service area is organized into two operational divisions: the Rancho Division and the Santa Rosa Division (see Figure ES-1). Together, these divisions encompass the District's potable and recycled water service areas and reflect differences in land use, customer composition, and infrastructure configuration. While each division maintains certain operational distinctions, both are managed as part of an interconnected system designed to maximize flexibility and reliability

Growing Population Accompanied by Improved Efficiency

Rancho Water has developed a land use database for parcels in and surrounding its service area. The database has information on the land use entity for each parcel (City of Temecula, the City of Murrieta, or the County of Riverside). The database has information on the monthly water

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Legend

- Rancho Division
- Santa Rosa Division
- Murrieta
- Temecula
- Wildomar
- Rancho Water Potable Service Area

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Rancho California Water District
2025 Urban Water Management Plan
Temecula, California

Rancho California Water District

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Figure ES-1

use by parcel. In Section 2 of this document, this database is used to calculate water use by land use type and customer billing type.

Population within the service area is projected to increase from approximately 157,000 in 2025 to 185,000 by 2050. Over the same period, total water demand is projected to increase from approximately 70,000 to 80,000 AF in a normal year.

In single-dry years, demand could increase to approximately **83,000 AF by 2050**. Despite growth, per capita water use has declined dramatically over the past two decades — from over 400 gallons per capita per day (GPCD) in the late 1990s to approximately 201 GPCD in 2020— due to conservation programs, plumbing efficiency standards, and recycled water expansion.

Meeting Water Conservation and Efficiency Targets

Review of projected demands as part of this UWMP demonstrate that:

- Rancho Water is meeting the conservation targets of the 2009 Water Conservation Act (known as SBx7-7 or 20 by 2020)
- Meets the California State Water Board water loss performance standards ahead of the 2028 requirement
- Is on track to meet "Making Water Conservation a California Way of Life" regulations

What Are the Supplies Available to the Region?

Historically, Rancho water supply mix has consisted of:

- **Imported Water (60–70%)**
  Purchased through regional wholesalers supplied by the Metropolitan Water District of Southern California, which includes deliveries from the State Water Project and Colorado River.
- **Native Groundwater (~30%)**
  Actively managed within the Temecula Valley Groundwater Basin, in conjunction with recharge operations and groundwater banking.
- **Recycled Water (4-8%)**
  Produced locally and used for irrigation of agriculture, parks, schools, golf courses, and large landscapes.

Through an integrated distribution system, this portfolio allows Rancho Water to balance costs, reduce reliance on treated imported water, and enhance operational flexibility during drought conditions. To further enhance supply resilience, the District is actively implementing a groundwater banking project that will expand existing groundwater banking capability through the addition of new recharge basins and wells.

What Period does this Plan Cover?

This UWMP covers past water use, current water use, and makes projections of supply and demand for the period **2030 to 2050**.

Assessing Reliability

This 2025 UWMP evaluates water demands and supplies through 2050 under a variety of conditions:

- **Normal/Average Year.** This represents the water supplies and demands that are typical or average. Evaluations of supply and demand in a normal year include current water conservation efforts and demand trends and assuming growth in the service area consistent with General Plans. The normal year considers current information on supplies given long-term hydrology and regulations.
- **Single-Dry Year.** This represents the year and conditions of Rancho Water's lowest water supply availability.
- **Five-Consecutive Year Drought.** This evaluates demands against supplies using the estimated lowest historical sequence.

This Urban Water Management Plan demonstrates that Rancho Water has sufficient water supplies to meet projected demands in normal years, single-dry years, and throughout the five-year multiple-dry-year reliability analysis required by the Urban Water Management Planning Act. The Five-Year Drought Risk Assessment, which evaluates near-term risks, demonstrated that Rancho Water has sufficient supplies, with the addition of its planned water bank, to meet demands should a five-year drought occur 2026 through 2030. The planned water bank is a supply augmentation action identified in the Water Shortage Contingency Plan.

Key Reliability Finding

It is the stated goal of Rancho Water to deliver a reliable and high-quality water supply for customers. This UWMP finds that Rancho Water maintains a diversified and resilient portfolio. The analysis in this Plan documents that in a normal year , a single-dry year, and five-year consecutive drought, Rancho Water has adequate supplies for its customers.

DELIVERING RELIABLE WATER FOR A GROWING COMMUNITY THROUGH 2050

Section 1: Introduction/Lay Description

1.1 Overview

The Rancho California Water District (Rancho Water or District) provides water and reclamation services to the City of Temecula, portions of the City of Murrieta, and unincorporated areas of Riverside County. The mission of Rancho California Water District is to deliver reliable, high-quality water and reclamation services to its customers and communities in a prudent and sustainable manner.

In 1983, the State of California established the Urban Water Management Planning Act (Act), and later an amendment to the Act, the Water Conservation Act of 2009 (SB X7-7), requiring all urban water suppliers shall adopt an Urban Water Management Plan (UWMP or Plan) within one year upon becoming an urban water supplier, and that plan shall be updated every five years. Requirements for plan content and applicability are outlined in California Water Code Sections §§10610 - 10657.

This chapter describes the general purpose of the Plan, discusses implementation, and provides a descriptive overview of Rancho Water, its service area, and its water supplies. This chapter also summarizes the fundamental determinations of the UWMP, including an assessment of water service reliability, anticipated challenges, and strategies to manage future reliability risks.

1.2 Purpose

UWMPs are a planning tool, which guide the actions of water management agencies, and support long-term resource planning to ensure adequate water supplies are available to meet existing and future water needs. The Plan provides managers and the public with a broad perspective on water supply issues, including past, current, and future water conditions, and compiles technical information that serves to inform reliable water management and planning. However, while the Plan supports the District's planning efforts and provides information that may inform those efforts, the Plan is not a substitute for project-specific planning documents. The Act requires Districts identify and include opportunities for exchanges or water transfers on a short-term or long-term basis in a general water service reliability analysis, but does not require a water management agency to pursue a particular water exchange/transfer opportunity, nor does it preclude a water management agency from exploring exchange/transfer opportunities not identified in the Plan. Instead, the information allows the District to make informed decisions when choosing projects best suited to support the District's goals. When specific projects are chosen to be implemented, detailed project plans are developed, environmental analysis, if required, are conducted, and financial and operational plans are detailed.

This Plan is a management tool, providing a framework for action, but not functioning in place of detailed project development or action. It is intended as a long-term planning guide, acknowledging that water management in California is inherently uncertain and that projections may change with future conditions. From this perspective, it is appropriate to look at the Plan as a general planning framework, not a specific action plan. It is an effort to generally answer a series of planning questions including:

- What are the potential sources of supply and what is the reasonable probable yield from them?
- What is the probable demand, given a reasonable set of assumptions about growth and implementation of good water management practices?
- How well do supply and demand figures match up, assuming that the various probable supply options will be pursued by the implementing agency?

Using these "framework" questions and resulting answers, the implementing agency will pursue feasible and cost-effective options and opportunities to meet demands.

The California Urban Water Management Planning Act (Act) requires preparation of a plan that:

- Accomplishes water supply planning over a 20-year period in five-year increments (Rancho Water goes beyond the requirements of the Act by developing a Plan, which spans 25 years.)
- Identifies and quantifies adequate water supplies, including recycled water, for existing and future demands, in normal, single-dry, and multiple-dry years.
- Implements conservation and efficient use of urban water supplies.

This UWMP covers the timeframe 2025 to 2050. In this timeframe, Rancho Water will need to start implementation of *Making Water Conservation a California Way of Life*, also known as the California Urban Water Use Objective (CWUO). CWUO is a regulatory framework proposed in 2016 that grew out of the 2012 to 2016 drought. The intent is to shift from a reactive drought response and associated rationing to a long-term conservation focus. CWUO is targeting efficient water use for residential indoor uses, outdoor residential uses, and Commercial, Industrial, and Institutional (CII) landscapes. Notably, the definition of "efficient," and hence the individual standards, change over time. Rancho Water's efforts to comply with CWUO will affect service area demand and are considered in this UWMP.

In short, this Plan addresses the question: *Will there be enough water for the area served by Rancho Water in future years given projections in demands and trends in supplies?*

1.3 Relationship to Other Planning Efforts

The UWMP is a long-term planning tool that provides water purveyors and their customers a broad perspective on water supply issues over a 20-year period (this Plan extends the analysis to 25 years). The UWMP is a management tool, providing the framework for action, but not functioning as a detailed project development plan.

The following is a list of other planning efforts that the District utilized in the preparation of the 2025 UWMP:

- General Plans developed by the Cities of Murrieta and Temecula, as well as the County of Riverside

- 2025 Draft Urban Water Management Plan developed by the Metropolitan Water District of Southern California (MWD), as well as the 2025 Draft Urban Water Management Plans developed by Eastern Municipal Water District (EMWD) and Western Municipal Water District (Western Water)
- The District's 2015 Water Facilities Master Plan
- The District's 2018 Recycled Water Resources Plan
- 2025 Draft Water Shortage Contingency Plan developed by MWD
- 2025 Update to the Riverside County Multi-Jurisdictional Hazard Mitigation Plan and Rancho California Water District Annex

1.4 Structure and Organization of the Plan

This plan is organized as follows:

- Introduction
- Water Demands
- Water Resources
- Recycled Water and Water Reuse
- Water Service Reliability
- Demand Management Measures
- Water Shortage Contingency Planning
- References
- Appendices

Appendix A contains a checklist documenting how this UWMP meets the requirements of the Urban Water Management Planning Act. The California Department of Water Resources (DWR) also requires that suppliers report and submit information in standardized tables developed by the Department of Water Resources (DWR). These standardized tables are provided as Appendix B of this document.

This Plan is prepared for Rancho California Water District and is an individual, not regional, Urban Water Management Plan and covers Public Water System (PWS) CA3310038 (Table 1-1). In the past, Rancho Water operated the Vail Lake Village Resort PWS; however, Rancho Water no longer owns or operates this PWS.

Table 1-1
Public Water System Covered by this Plan
(DWR Table 2-1)

Public Water System Number	Public Water System Name	# of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)*
CA3310038	Rancho California Water District	45,743	52,693

Notes: *Includes all metered consumption potable and non-potable less wheeled water.

The District has elected to report on a fiscal year basis in the 2025 UWMP. The District has utilized a fiscal year (FY) basis for reporting all data throughout this 2025 UWMP, and therefore, all text and table columns labeled with years refer to the fiscal year ending in that year. For example, FY25 denotes FY 2024-2025. As presented in Table 1-2, the start date of the District's FY is July 1st, with an end day of June 30th. The District has also elected to report all water volumes throughout the 2025 UWMP in acre-feet (AF).

Table 1-2
Agency and Plan Structure
(DWR Table 2-3)

Type of Agency	
☐	Agency is a Wholesaler
☑	Agency is a Retailer
Fiscal or Calendar Year	
☐	UWMP Tables are in Calendar Year
☑	UWMP Tables are in Fiscal Year
	FY begins July 1 and ends June 30
Units of Measure Used in this UWMP	
☑	Acre Feet (AF)
☐	Million Gallons (MG)
☐	Hundred Cubic Feet (CCF)

1.5 Coordination and Outreach

The Act requires coordination with appropriate agencies in the area, including those which share a common source of water, management agency, and relevant public agencies, to the extent practicable, while preparing the 2025 UWMP update. In preparation of the update Rancho Water staff conducted coordination, and solicited input from the District's Engineering, Administrative, Operations, and Finance Divisions, as well as local land use jurisdictions and wholesale partners (EMWD and Western Water). Rancho Water provided estimates of the District's wholesale water needs for 2030-2050 to both EMWD and Western Water in February 2026.

These agencies were provided the opportunity to comment on the draft 2025 UWMP. Table 1-3 shows the agencies and their level of participation. This Plan, along with other District planning documents, will be used by Rancho Water staff to guide the District's water use and management efforts through the year 2030, when the UWMP will be updated.

The Cities of Temecula and Murrieta, the County of Riverside, EMWD, Western Water, MWD, Pechanga Band of Luiseňo Indians, and the Santa Margarita River Watershed Watermaster were notified 60 days prior to the public hearing on the District's intent to update the District's 2025 UWMP, in accordance with Water Code Sec. 10621(b). 60-day notices were mailed to these entities on November 6, 2025. The 2025 UWMP will be discussed at several publicly noticed Engineering and Operations Committee meetings at the District's headquarters, prior to the final public hearing, in order to encourage active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the Plan [text to be updated between draft and final].

Table 1-3
Agency Coordination Summary [updated between draft and final]

	Participated in UWMP Development	Commented on the Draft	Attended Public Meetings	Contacted for Assistance	Received Copy of Draft	Sent Notice of Intention to Adopt	Not Involved / No Information
County of Riverside Planning Department							
City of Temecula Community Development Department							
City of Murrieta Development Services							
Eastern Municipal Water District	X						
Western Municipal Water District	X						
Metropolitan Water District of Southern California							
Santa Margarita Watermaster							
Pechanga Band of Luiseño Indians (Pechanga Tribe)							

1.5.1 Plan Adoption

Rancho Water began preparation of this Plan in September 2025. In accordance with Section 10642 of the California Water Code, the public hearing for the 2025 UWMP will be noticed in a local newspaper (The Press-Enterprise), and the notice shall include the time and place of the hearing [date TBD], as well as the location where the Plan will be available for public inspection. The Cities of Temecula and Murrieta, the County of Riverside, EMWD, and Western Water will also be notified of the public hearing. Additionally, in accordance with the California Water Code Section 10642, the 2025 UWMP will be made available from the District's website for public inspection prior to the public hearing, so comments may be received and reviewed by the District's Board of Directors prior to adoption of the UWMP. The final draft of the Plan was adopted by the Board of Directors by Resolution No. 2026-0XX (Appendix C) and submitted to DWR within 30 days of approval. The Plan includes all information necessary to meet the requirements of Water Conservation Act of 2009 (Wat. Code, Sections 10608.12-10608.64) and the Urban Water Management Planning Act (Wat. Code, Sections 10610-10656). Additionally, the Plan will be submitted to all appropriate entities and made available for public review per the requirements of the Urban Water Management Planning Act. Rancho Water encourages public engagement and encourages all residents, including non-English speaking residents, to comment on all public documents and at public hearings. Accordingly, Rancho Water will make translation services available during the public review and comment period of the UWMP. [text in this paragraph to be updated between draft and final].

During review the draft UWMP was made available both in hard copy and digital copy to facilitate review by customers. Customers may access the draft plan in machine readable portable document format and can access publicly available translation services.

1.5.2 Plan Submittal

Upon adoption of the UWMP by Rancho Water's Board of Directors, the District will submit the adopted Plan in accordance with California Water Code Sections 10621, 10644(a)(1)-(2), and 10635(c). Rancho Water will provide the UWMP to the California Department of Water Resources by the statutory deadline of July 1, 2026. Upon submittal of the Plan, the Plan will be available to the public through the California State Library and any city or county to which Rancho Water provides water.

1.6 System Description

1.6.1 System at a Glance

Rancho California Water District (Rancho Water/the District) is a public water agency created in 1977 through the consolidation of two predecessor agencies. The Rancho California Water District was originally organized in 1965 to serve the easterly 41,000 acres of the area known as Rancho California, while the Santa Rosa Ranches Water District was formed in 1968 over the westerly 46,000 acres. In 1977, the two districts were consolidated into a single agency now known as Rancho California Water District, which provides water and wastewater services to a growing inland Southern California community. Today, Rancho Water serves approximately 155,000 people within the City of Temecula, portions of the City of Murrieta, and unincorporated areas of Riverside County. The District is located approximately 85 miles southeast of Los

Angeles and 65 miles north of San Diego, and its current service area is bounded on the southeast by the Santa Ana Mountains and on the northeast by Gavilan Hills. The total gross acreage within the District's service area is approximately 99,000 acres (154.7 square miles). See Figure 1-1.

Rancho Water supplies its service area through a diversified portfolio of imported water, groundwater, and recycled water supplies, which, supported by regional partnerships and local infrastructure, enables it to operate a resilient and flexible water system. This integrated approach positions the District to meet customer demands under normal, dry, and multiple-dry year conditions while supporting long-term resource sustainability.

1.6.2 Service Area and Divisions

Rancho Water's service area is organized into two operational divisions: the Rancho Division and the Santa Rosa Division (see Figure 1-1). Together, these divisions encompass the District's potable and recycled water service areas and reflect differences in land use, customer composition, and infrastructure configuration. While each division maintains certain operational distinctions, both are managed as part of an interconnected system designed to maximize flexibility and reliability.

1.6.3 Imported Water System

Imported water is the District's primary source of supply in most years. Rancho Water receives imported water through regional wholesalers, including Eastern Municipal Water District (EMWD) and Western Municipal Water District (Western Water), which in turn obtain supplies from the Metropolitan Water District of Southern California (MWD). Imported supplies are conveyed through regional aqueducts, pipelines, and treatment facilities before delivery to Rancho Water's system.

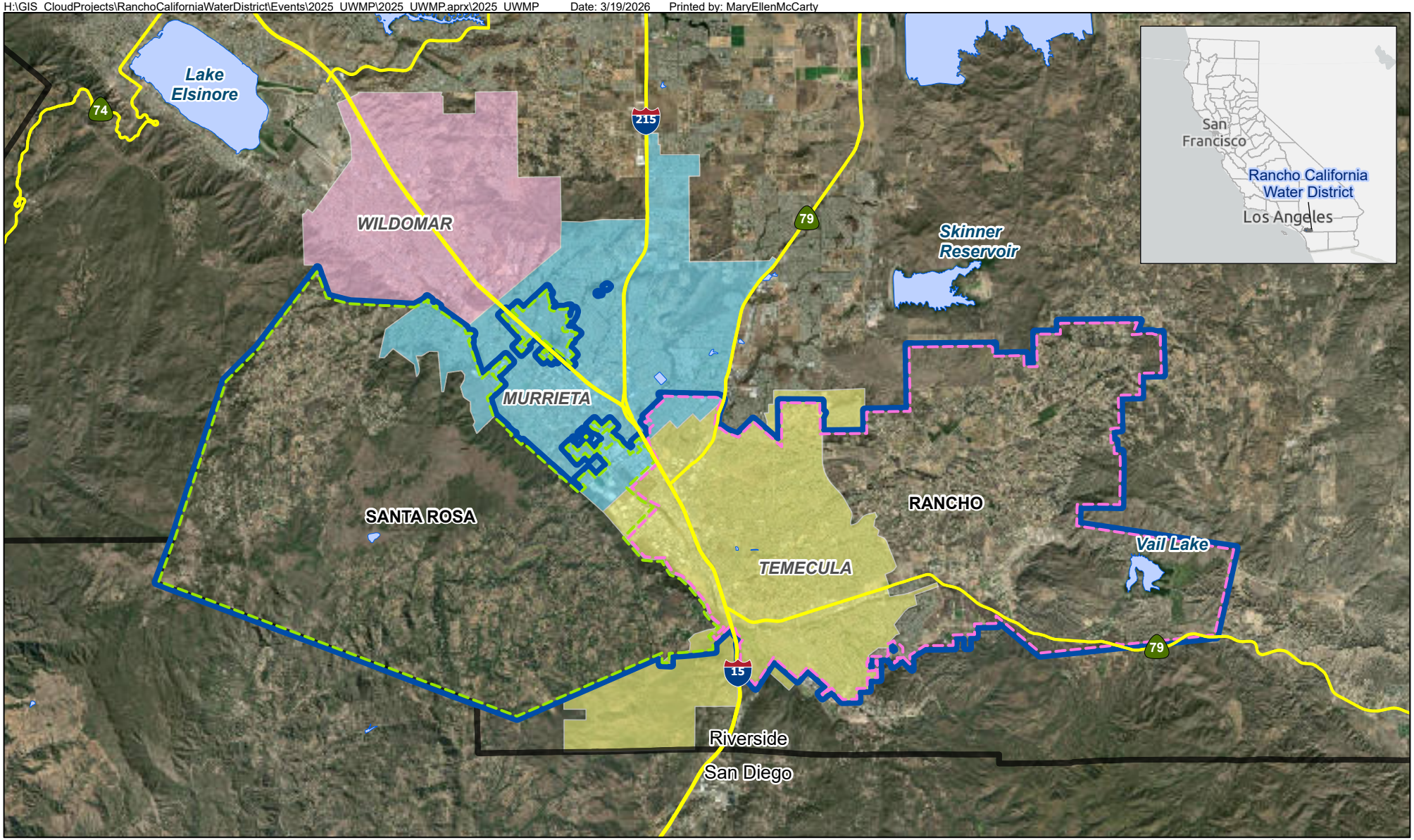
Imported water is delivered both for direct distribution through the potable system and to support groundwater recharge operations. Key imported water conveyance and integration points are illustrated in Figure 1-2. Historically, imported water has supplied approximately 60 to 70 percent of total District demand, depending on hydrologic conditions.

1.6.4 Groundwater System

The District's groundwater system is comprised of multiple subbasins within the Temecula Valley Groundwater Basin as shown in Figure 1-3. These subbasins are managed collectively to support reliable groundwater production across the service area.

Groundwater (native) has historically supplied approximately 30 percent of total District demand, with annual contributions varying based on recharge conditions, pumping constraints, hydrologic conditions, and operational considerations. The groundwater system plays a critical role in reducing cost and reliance on treated, imported water, while also enhancing overall system resilience.

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Legend

- Rancho Division
- Santa Rosa Division
- Murrieta
- Temecula
- Wildomar
- Rancho Water Potable Service Area

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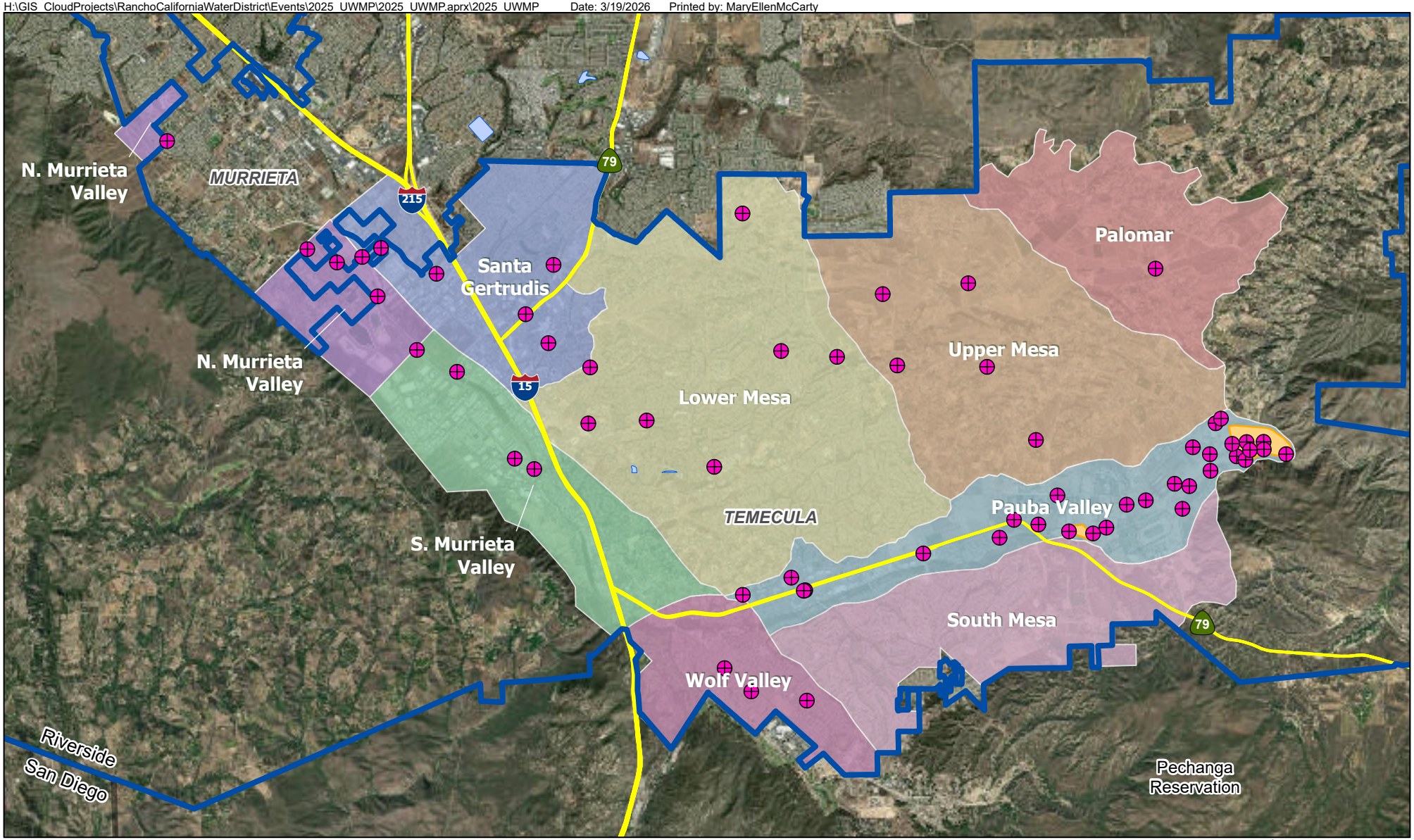
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2025 Urban Water Management Plan
Temecula, California

Rancho California Water District

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Figure 1-1

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Legend

- Groundwater Wells
- Groundwater Recharge Basin
- Rancho Water Potable Water Service Area

Sub-Basin

- Lower Mesa
- N. Murrieta Valley
- Palomar
- Pauba Valley
- S. Murrieta Valley
- Santa Gertrudis
- South Mesa
- Upper Mesa
- Wolf Valley

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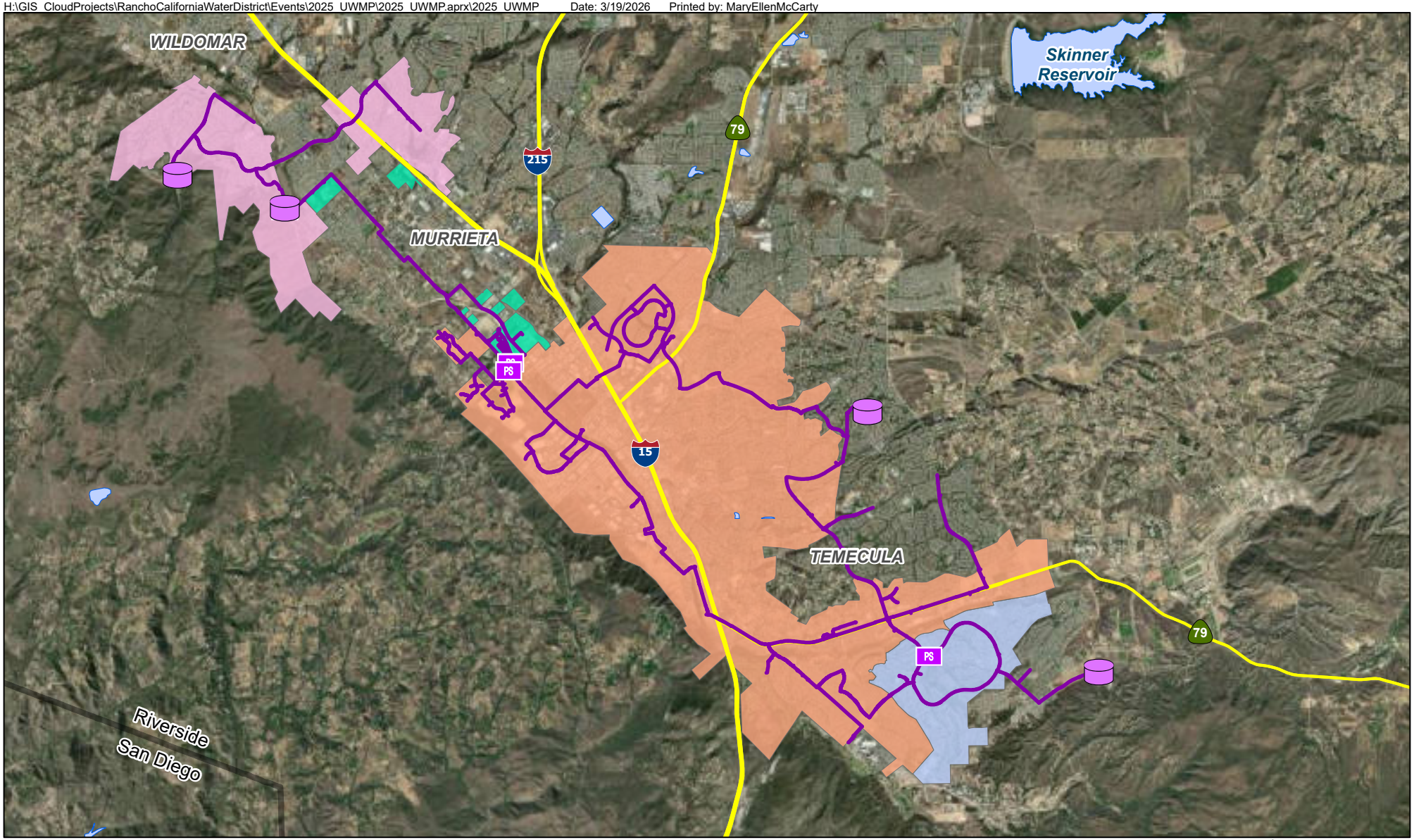
Rancho California Water District
2025 Urban Water Management Plan
Temecula, California

Groundwater Resources
Rancho California Water District

2544222*00

Figure 1-2

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Legend

- PS — Recycled Water Pump Station
- Recycled Water Reservoir
- Recycled Water Pipeline

Recycled Water Pressure Zones

- 1181
- 1381
- 1441
- 1481

N

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Kennedy Jenks

Rancho California Water District
2025 Urban Water Management Plan
Temecula, California

Recycled Water Facilities
Rancho California Water District

2544222*00

Figure 1-3

Groundwater recharge occurs primarily at the Upper Valle de los Caballos (UVDC), which serves as the District's principal groundwater recharge facility. Expansion of recharge capabilities into the Mid-Valley area is currently underway, further increasing the District's ability to store water during periods of availability and enhance long-term basin reliability. Recharge is accomplished using a combination of imported raw water purchased from the MWD and native water replenished naturally through surface runoff.

Together with a large and expanding portfolio of groundwater production wells distributed throughout the service area, these recharge facilities allow Rancho Water to actively manage its groundwater resources. Groundwater is procured through managed recharge of imported supplies or from native sources replenished surface runoff. Groundwater resources are actively managed in coordination with regional partners and regulatory agencies. Management activities include monitoring basin conditions, implementing recharge programs, and coordinating pumping to support long-term groundwater sustainability.

1.6.5 Recycled Water System

Rancho Water operates and utilizes a recycled water system to offset potable water demands for non-potable uses such as landscape irrigation and agricultural applications. Recycled water is produced at the Santa Rosa Water Reclamation Facility, which is operated by the District on behalf of the Santa Rosa Regional Resources Authority (SRRRA) Joint Powers Authority, and is also purchased from EMWD through the Temecula Valley Regional Water Reclamation Facility (TVRWRF). Recycled water is distributed through a dedicated recycled water (purple pipe) system shown in Figure 1-4.

The recycled water system is supported by supplemental groundwater wells that can be used as needed to maintain service reliability. In combination with take-or-pay supply arrangements, this operational flexibility means that recycled water availability is not constrained by the quantity of supply. Instead, growth in recycled water use is primarily constrained by applicable Basin Plan objectives. In particular, low total dissolved solids (TDS) requirements limit the extent to which recycled water can be applied in certain areas, thereby influencing where and how recycled water service can be expanded.

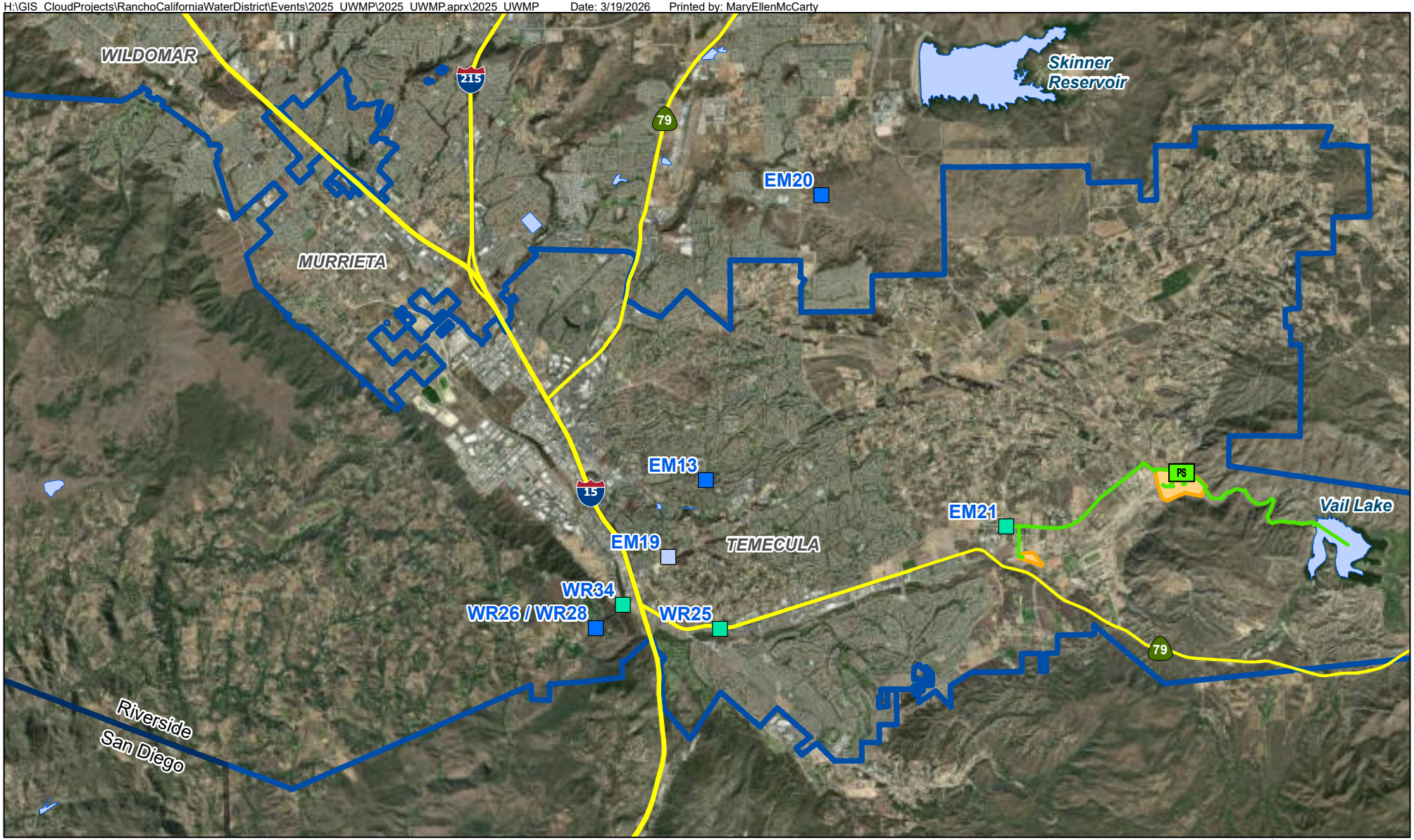
Despite these constraints, the recycled water system provides a reliable, drought-resilient supply that reduces demand on potable water resources. Rancho Water continues to evaluate opportunities for recycled water system expansion and customer conversions, while ensuring compliance with water quality objectives and regional regulatory requirements.

1.6.6 Conveyance, Treatment, and Storage Facilities

The District's water system includes a network of major transmission pipelines, pump stations, treated water reservoirs, within multiple pressure zones that convey and store water from multiple sources. Imported water is treated at regional facilities prior to delivery, while groundwater extracted from local wells is treated as necessary to meet all state and federal drinking water standards.

Treated water storage reservoirs provide operational flexibility, emergency reserves, and pressure management across the service area. These facilities allow the District to balance supplies, respond to equipment outages, and meet seasonal and demand patterns.

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Legend

- PS — Raw Water Pump Station
- Treated Water Turnout
- Raw Water Turnout
- Raw Water Turnout, Inactive
- Raw Water Pipeline
- Rancho Water Potable Service Area
- Groundwater Recharge Basin

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Miles

Kennedy Jenks

Rancho California Water District
2025 Urban Water Management Plan
Temecula, California

Key Imported Water Facilities
Rancho California Water District

2544222*00
Figure 1-4

1.6.7 Regional Partnerships and System Integration

Rancho Water's system is closely integrated with those of regional and wholesale partners. Coordination with MWD, EMWD, Western Water, and groundwater management agencies supports efficient system operations, shared infrastructure use, and regional water supply reliability. These partnerships are essential to meeting current and future demands and to adapting to changing regulatory and hydrologic conditions.

1.7 Land Use

Rancho Water has developed a land use database for parcels in and surrounding its service area. The database has information on the land use entity for each parcel (City of Temecula, the City of Murrieta, or the County of Riverside) and each land use is coded to one of the 25 Rancho Water land use classifications. In addition, the database includes monthly water use at the parcel level. In Section 2 of this document, this database is used to calculate water use by land use type and customer billing classification. Land use data is combined with applicable water duty factors to estimate projected demands through buildout of the service area. . The pertinent land use classifications are provided in Table 1-4.

1.8 Population

The cities of Temecula and Murrieta have become desirable places to live due to their proximity to major cities in Southern California and lower cost of living. As a result, both cities have experienced significant population growth and a growing need for reliable water supplies. Reliable water supplies are also required to support agriculture in the region. The District includes approximately 9,100 irrigated acres of agriculture and ranch lands, primarily vineyards, avocado, and citrus trees. Particularly, the Temecula Valley is a premier wine grape growing area in California. The vineyards in this region, coupled with other local, high-value crops, require consistent irrigation supply. Major agricultural acreage is specifically concentrated in the southwestern and eastern portions of the District.

Population and population projections have been taken from Southern California Association of Governments (SCAG), *Current Context, Demographics and Growth Forecast*, May 7, 2020. SCAG is a Joint Powers Authority under California state law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization and under state law as a Regional Transportation Planning Agency and a Council of Governments. SCAG develops long-range regional transportation plans including sustainable communities strategies and growth forecast components, regional transportation improvement programs, and regional housing needs. Demographic data development is a key function of work performed by SCAG and therefore, the District has utilized this data within the Plan. However, SCAG data only provides projections to 2040. Therefore, using the data provided, the UWMP assumes a growth rate for the period 2040 to 2045 of 0.66%, and, additionally, applies this percentage to 2045 to 2050.

The population data and boundaries from SCAG were overlaid with the District service area boundaries. As shown in Table 1-5, the analysis identified 157,451 persons in the District service area in 2025.

Table 1-4
Land Use in Rancho Water Service Area

Land Use	Acres
Residential	
Ag/Vineyard Planning Areas	7,065
Estate 20	7,203
Estate 10	33,531
Estate 5	6,955
Estate 2	5,888
Low Density	620
Medium Density	6,660
High Density	855
Multi-Family	484
Non-Residential	
Commercial	1,298
Business Park	1,597
Industrial	99
Civic/Institutional	2,075
Right-of-Way	7,012
Open Space - Conservation	10,102
Open Space - Conservation Habitat	1,970
Open Space - Native	1,755
Open Space - Recreational	1,867
Altair Specific Plan	261
Harveston Specific Plan	88
Old Town Specific Plan	103
Temecula Creek Inn Specific Plan	309
Twelve Oaks Specific Plan	631
Uptown Jefferson Specific Plan	317
Vineyards Specific Plan	476
2025 Service Area Acreage	***99,220***

Table 1-5
Population Projections
(DWR Table 3-1)

	2025	2030	2035	2040	2045	2050
Rancho Water Service Area	157,451	163,731	167,344	172,286	178,670	185,290

1.9 Social, Economic and Demographic Factors Affecting Water Management

Unless otherwise noted, the following information has been taken from the 2018-2023 American Community Survey for the Census Tracts in the Rancho Water service area.

Approximately 24 percent of the Rancho Water service area population is under 18 years of age, approximately 63 percent between 19 to 64 years of age, and approximately 13 percent over 65 years of age. Most housing in the service area, about 83% is single family housing. The service area has a high homeownership rate, approximately 75% of housing units are owner occupied. The average household size is estimated to be 3 persons. Median household income has trended higher than California as a whole. The education rate, measured as having a bachelor's degree or higher, is about the same as California.

The service area, particularly in and around the Cities of Murrieta and Temecula, grew rapidly between 2000 and 2020 but has significantly slowed since 2020. Over 97 percent of the housing stock was built in 1970, with only 39 percent built since 2020.

1.10 Climate

The regional climate is Mediterranean with hot, dry summers and cool, wet winters. Summer daytime temperatures are in the mid-80 to high-90 degrees Fahrenheit range. The area's temperature is influenced by prevailing onshore winds from the Pacific Ocean and the rain shadow effect from the Santa Rosa Mountains. The "Santa Ana winds" can cause periods of extremely hot weather with dry winds. Winter daytime temperatures are mild, averaging in the mid-60s degree range. Table 1-6 shows the average annual climate information by month.

Table 1-6
Annual Climate Information

	Jan	Feb	Mar	Apr	May	Jun
Standard Monthly Average ETo (in)	2.66	3.24	4.75	5.89	6.37	7.6
Average Rainfall (in)	2.49	2.49	1.39	0.45	0.18	0.02
Average High Temperature (ºF)	54.5	55.3	59	65.1	68.3	74.7
	Jul	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**
Standard Monthly Average ETo (in)	7.66	7.66	6.07	4.9	3.42	2.4
Average Rainfall (in)	0.19	0.14	0.21	0.62	0.5	2.32
Average High Temperature (ºF)	80.1	81.4	77.8	83.7	74.1	66.9

Source:

Evapotranspiration (ETo) data from Station #237 Temecula East III as provided on the CIMIS website database at www.cimis.water.ca.gov for the period of record from November 2012 to November 2025.

The average rainfall data and max temperature data is from the National Weather Service, ELSINORE Station January 1, 2000 to December 3, 2025.

The standard annual average evapotranspiration (ETo) rate for the region was 62.3 inches per year, with the highest rates occurring during the summer months. ET is the loss of water to the atmosphere by the combined processes of evaporation (from soil and plant surfaces) and transpiration (from plant tissues). It is an indicator of how much water crops, lawns, gardens,

and trees need for healthy growth and productivity. ET from a standardized grass is commonly denoted as ETo.

Total annual precipitation for the region averages 10.19 inches per year (based on 2000-2025 data from the National Weather Service Elsinore rain gauge). During very wet years, rainfall can exceed 26 inches, while during very dry years rainfall can be less than 4 inches. Rainfall is more prevalent during the months of November through March.

1.11 Potential Effects of Climate Change

A topic of growing concern for water planning and management is the potential impacts climate change may have on California's future water supplies. Climate change models have predicted potential effects from climatic changes will result in increased temperature, early snow melt, and a rise in sea level.

Estimating the impacts and effects of climate change at a regional level is challenging due to the coarse spatial scale of models that project climate change impacts of temperature and rainfall, as well as the long timescale which is evaluated in many models. State entities are working to downscale climate models to allow for climate change planning at a level that can be useful for planning efforts. The timescale used for these models can be downscaled to provide outputs for the year 2050.

The following summary of Cal-Adapt Climate Projections for Riverside County were provided by the California Department of Public Health (DPH). The assessment by DPH found the following likely climate change effects by 2050:

- Increased average January temperature: 2° Fahrenheit (F) to 4°F
- Increased average July temperature by 3°F to 5°F
- Decrease in rainfall of 2 to 4 inches
- Heatwaves of five or more consecutive days with temperatures over 100 degrees occurring three to five times more each year
- Increased risk of wildfire, with very high fire risk in mountain areas east of Temecula
- Decrease in local supplies (not quantified)
- Increase in water demand (not quantified)

  Source: California Department of Public Health. 2017. Climate Change and Health Profile Report Riverside County.

Studies by the Department of Water Resources provide estimates of the impact of climate change on imported water supplies. The 2023 State Water Project Delivery Capability Report anticipates a decrease in SWP supplies of 23% in the next 20 years (DWR 2024). The US Bureau of Reclamation has demanded that states using the Colorado River significantly reduce demand on the river in the near-term.

This UWMP considers potential changes in water supplies and demands, and provides demand projections which consider changes in the land uses in the service area with inclusion of an

assessment as to how demand may change during extended drought periods. The supply projections in this document rely heavily on modeling (such as that done as part of the State Water Project Delivery Capability Report) that consider various climate scenarios.

1.12 Fundamental Findings of the Urban Water Management Plan

It is the stated goal of Rancho Water to deliver a reliable and high-quality water supply for customers. As shown in the analysis in this Plan documents that in a normal year and single-dry year, Rancho Water has adequate supplies for customers. If a multi-year drought were to occur before Rancho Water implements its Groundwater Banking Project, in later years of drought it may be necessary to implement mandatory conservation measures to reduce demands and avoid water shortages.

Section 2: Water Demands

2.1 Overview

This section describes the District's potable and raw water demands, quantifies the current water system demand by sectors and provides projections through 2050. The different connections by sector are shown in Table 2-1. These projections include water sales to other agencies, water requirements for the Santa Margarita River, and system water losses. While the water demand summary presented in Table 2-2 includes recycled water demands, the discussion and development of recycled water demands is presented in Section 4.

Rancho Water's FY25 potable and raw water demands are obtained from the District's Customer Billing Records. Each active water meter has also assigned to the appropriate parcel(s) for which the meter provides service. Based on the location of each parcel, the agency with jurisdiction over each parcel's general plan land use classification is identified as either the City of Temecula, the City of Murrieta, or the County of Riverside. Each local land use classification is consolidated into a corresponding District land use classification (e.g., Residential – Low Density, Multi-Family Residential, Commercial, Industrial, Civic/Institutional, etc.) Table 2-1 summarizes the District's potable water connections in FY25.

Table 2-1
Active Water Connections in FY25 by Sector

Sector	Number of Active Connections
Single-Family Residential	39,066
Multi-Family Residential	248
Agriculture Residential	870
Commercial/Industrial/Institutional	1,736
Landscape	1,468
Agriculture	633
Other	1,414
Reclaimed	308
Total	***45,743***

2.2 Water Use Sectors

Rancho Water's water use sectors are described below.

2.2.1 Single Family Residential Sector

A single-family dwelling unit is a lot with a free-standing building containing one dwelling unit that may include a detached secondary dwelling. In FY25 there were 39,006 active Single-Family potable water connections, with a 2025 water demand of 22,035 AF, which comprised approximately 42% of the District's FY25 total water deliveries. This includes the 870 connections classified Agriculture Residential (it is assumed 11.2% of the Ag Residential Demand is for household use).

2.2.2 Multi-Family Residential Sector

A multi-family lot contains multiple dwellings within 1 building or several buildings within 1 complex. In FY25, there were 248 active Multi-Family potable water connections, with a 2025 water demand of 2,214 AF, which comprised approximately 4% of the District's FY25 total water deliveries.

2.2.3 Commercial/Industrial/Institutional Sector

A CII water user is one that provides or distributes a product or service (CWC 10608.12 (e)). In FY25, there were 1,736 active Commercial potable water connections, with a water demand of 3,042 AF, which comprised approximately 6% of the District's FY25 total water deliveries. This includes approximately 250 Industrial connections that the District includes in the Commercial classification. Based on the District's Customer Billing Record, it was determined that Commercial and Industrial water demand is similar per gross acre. Accordingly, the District includes this small industrial sector within the District's commercial classification. Institutional water users are included in this classification. An institutional user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

2.2.4 Landscape – Potable Water

This category includes water connections supplying water solely for landscape irrigation. Such landscapes may be associated with Multi-Family, Commercial, Industrial, or Institutional/Governmental sites, but are considered a separate water use sector if the connection is solely for landscape. In FY25, there were 1,468 active potable water connections, with a 2025 water demand of 4,239 AF, which comprised 8% of Rancho Water's FY25 total water deliveries. This includes two potable golf connections.

2.2.5 Agriculture - Potable

Agricultural demand includes water used for commercial agricultural irrigation. Commercial agricultural production is defined by the U.S. Department of Agriculture and the Census Bureau as any place from which $1,000 or more of agricultural products (crops and livestock) were sold or normally would have been sold during the year. Rancho Water includes 9,100 irrigated acres of agriculture production, primarily vineyards, avocado, and citrus trees. The Temecula Valley is a premier wine grape growing area in California, which, coupled with other high-value crops in the region, requires a consistent irrigation supply. Major agricultural acreage is concentrated in the southwestern and eastern portions of the District. In FY25, there were 633 active Agriculture potable water connections, with a 2025 water demand of 10,467 AF, which comprised 20% of Rancho Water's total water deliveries.

2.2.6 Other - General

Rancho Water has other miscellaneous usage, which include the following: fireline consumption, temporary construction meters, and fire training. This usage is estimated to be 2% of the total water demand.

2.2.7 Other - Wheeling

Rancho Water receives water and wheels it to properties within the EMWD and Western Water retail water service areas. These are not water sales but rather wheeling agreements. Water is provided by EMWD and moved through the Rancho Water system to serve Nakayama Park, Lake Skinner Park, Glen Oaks, and for delivery to Pechanga. Similarly, water is provided by Western Water and moved through the Rancho Water system before delivery to Rock Mountain (a Western Water customer). Table 2-2 summarizes Rancho Water's wheeling agreements. Because the water for wheeling is provided to Rancho Water, it is not considered a demand on Rancho Water's supplies and is provided here for informational purposes only.

2.2.8 Other – Santa Margarita River

On August 20, 2002, the Cooperative Water Resource Management Agreement (CWRMA) between the United States, on behalf of Marine Corps Base Camp Pendleton (Camp Pendleton), and Rancho Water was approved by the United States District Court in United States of America v. Fallbrook Public Utility District, et al. (Civil No. 51-cv-1247-GPCRBB) (Fallbrook Case). The CWRMA allows Camp Pendleton and Rancho Water to effectively manage water resources through provisions which guarantee flows for the Santa Margarita River located near Temecula (USGS Gaging Station No. 11044000) in an area commonly referred to as "the Gorge". The Santa Margarita River Watershed Watermaster (Watermaster) administers the CWRMA in consultation with a Technical Advisory Committee (TAC) and the Watermaster prepares an annual report regarding the performance under the various provisions of CWRMA. As part of the CWRMA Rancho Water must take actions to provide specific flows at the Gorge. These flow requirements are based upon stipulated methodologies and vary on a monthly basis depending upon hydrologic conditions. At a minimum, the District guarantees that flows, based on a 10-day running average, shall at no time be less than 3.0 cubic feet per second (cfs).

The flow requirements are determined based on the hydrologic condition for the preceding October to April period and the hydrologic year type is determined by the TAC on May 1st of each year. The Minimum Daily Flow Requirements at the Gorge, calculated on a 10-day running average, are specified for each month based on the hydrologic year type. For a critically dry year flow requirements are between 3.0 and 4.5 cfs; in a below normal year flow requirements are between 3.9 to 8 cfs, in above normal years the flow requirements by month are between 7.4 and 11.5 cfs; and in very wet periods the flow requirements are between 9.2 and 11.5 cfs (Santa Margarita River Watershed Watermaster 2025). Untreated MWDSC imported water is purchased by the District from Western Water and conveyed through an outfall pipeline for release into the Santa Margarita River at the Gorge, pursuant to the CWRMA. This water does not enter the District's distribution system and it is not part of its customer sales. Over the last ten years, Rancho Water has purchased and released an average of 3,792 AF each year to the Santa Margarita River. In FY25, Rancho Water purchased and released 4,103 AF. For demand projections, it is assumed that Rancho Water may need to purchase and release up to 4,000 AF in any year to meet the provisions of the CWRMA.

Table 2-2
Rancho Water Wheeling Agreements

Property Served	Service Capacity	Supply Connection	Interagency Agreement	Status
Lake Skinner Park	360 gpm	EM-13 and/or EM-20 will be identified in agreement update to reflect the supply connection to compensate the District	Executed 4/21/81 between the District and EMWD; and Amendment No. 1 dated 7/8/2013.	Active
Nakayama Park: Parcel No. 1 of PM 10037/APN 957-080-023	Undefined amount; inferred as amount used by property owner	Adjustment of EM-13 or EM-20 allocation to compensate the District	Executed 5/2/06 between the District and EMWD	Active
Pechanga Reservation	1,575 AFY (75% of safe yield of the Wolf Valley Groundwater Basin)	Produce groundwater from Pechanga wells or through potable connection to the District	Executed November 29, 2017 the Amended and Restated Groundwater Management Agreement between the District and Pechanga Band of Luiseño Mission Indians	Active; Based on November 29, 2017 Settlement Agreement among the Pechanga Band of Luiseño Mission Indians, Rancho California Water District, and the United States of America, which states that the total Tribal Water Right is up to 4,994 AFY, and is to be made up of groundwater and MWD imported water (this does not include recycled water or local granitic wells). Current safe yield capacity of the Wolf Valley Groundwater Basin is 2,100 AFY.

Table 2-2 cont.

Property Served	Service Capacity	Supply Connection	Interagency Agreement	Status
Rancho Glen Oaks	Average 600 gpd/parcel for a maximum 115 metered (parcels) connections	EMWD adjustment of EM-13 allocation or other appropriate delivery point to compensate the District	Executed 1/20/93 between the District and EMWD; and Amendment No. 1 dated 2/16/2006.	Active
Rock Mountain Area	500 gpm	Western Water adjustment of WR-26 or WR-28 allocation to compensate the District	Executed 1/19/05 between the District and Western Water	Active

2.2.9 Reclaimed Water

Rancho Water has specific recycled water uses, including irrigation of golf courses, large landscape areas, schools, parks, and greenbelts. Recycled water is discussed in more detail in Section 4. Rancho Water provides recycled water produced at the SRRRA's Santa Rosa Water Reclamation Facility (SRWRF) or purchased from EMWD's Temecula Valley Regional Water Reclamation Facility (TVRWRF).

In FY25, Rancho Water delivered 4,205 AF of recycled water (not inclusive of water used at the recycled water plant) and recycled water made up approximately 8% of all water deliveries.

2.2.10 Other Water Use Sectors Listed in Water Code

The Water Code also lists "Saline Water Intrusion Barriers" and "Conjunctive Use". However, the District does not use water for saline water intrusion barriers.

The District does utilize Conjunctive Use as a management strategy where surface water is managed in conjunction with an underground aquifer. For purposes of the UMWP, Conjunctive Use is seen as a management strategy, not a demand, and therefore "Conjunctive Use" will not be reflected as a specific demand sector in this Plan. A discussion of Rancho Water conjunctive use management strategy of Vail Lake is provided in Section 3.2.1.

2.2.11 Water Loss

Water loss is estimated based on a comparison of billing records (consumption) versus production records and does not include recycled water. Rancho Water reviewed apparent loss (loss due to meter inaccuracies and theft) and real loss (loss due to leaks) from FY 2020 to 2025 using American Waterworks Association (AWWA) Water Audit Software. Over this period water loss averaged 6.2% of all water sales. The available 2020 through 2025 Water Loss Audit Reports are provided in Appendix D.

Table 2-3
Last Five Years Water Loss Reporting
(DWR Table 4-5)

Reporting Period Start Date	Volume of Water Loss (AF) [1]	% of Water Produced	Link to DWR Submittals
7/1/2021	3,231	5.7%	https://wuedata.water.ca.gov/public/awwa_uploads/3784314811/2021%20Water%20Loss%20Audit%20Summary%20Report%20%2D%20March%202022%20Revision.pdf
07/2022	3,580	6.6%	https://wuedata.water.ca.gov/public/awwa_uploads/3553052604/2022%20Water%20Loss%20Audit%20Summary%20Report.pdf
07/2023	1,995	4.4%	https://wuedata.water.ca.gov/public/awwa_uploads/7416669547/Rancho%20California%20Water%20District%20FY2022%2D2023%20Validator%20Certification%20Report.xlsx
07/2024	3,177	7.4%	https://wuedata.water.ca.gov/public/awwa_uploads/2001096427/Rancho%20California%20Water%20District%20%2D%20FY2024%20%2D%20Validator%20Certificate.xlsx
07/2025	2,995	5.1%	https://wuedata.water.ca.gov/public/awwa_uploads/6808713614/Rancho%20California%20Water%20District%20FY2025%20%2D%20Validator%20Certification%20Report.xlsx

Notes:

[1] Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.

Water Code Section 10608.34, requires compliance with a water loss standard. The State Water Resources Control Board (State Water Board) Water Loss Performance Standard is composed of the real water loss standard and the apparent water loss standard. The water loss standard does not have to be met until 2028. However, pursuant to Water Code Section 10631(d)(3)(C), retail water suppliers are required to include data in their 2025 UWMPs demonstrating whether they meet the water loss standard.

A comparison of results from the most recent (FY2025) AWWA Water Loss Audit to the 2028 standard is shown in Table 2-4. A comparison of results from the most recent (FY2025) AWWA Water Loss Audit to the 2028 standard is presented in Table 2-4. When accounting for the additional 5 gallons per connection per day (gpcd) real loss allowance, Rancho Water meets the Real and Apparent Water Loss Performance Standards. Compliance will continue to be re-evaluated with future annual water loss audits as they become available.

Table 2-4
Progress Towards 2028 Water Loss Standard
(DWR Table 4-6)

Real Water Loss		Apparent Water Loss	
State Water Board 2028 Standard	**Real Water Loss based on FY2025 Audit**	**State Water Board 2028 Standard**	**Apparent Water Loss based on FY2025 Audit**
48.6 gallons per service connection per day	49.4 gallons per service connection per day	10.2 gallons per service connection per day	9.5 gallons per service connection per day

2.3 Historical Water Use

Since 1996, Rancho Water has had a steady increase in population, yet a steady decline in the annual per capita usage of (potable) water. From 1996 to 2000 Rancho Water's gallons per capita per day (GPCD) averaged 415. During 2000 through 2005, the GPCD averaged about 372. By 2020, per capita usage was 201. This decrease in per capita consumption is a result of plumbing code changes, such as low flow fixtures and low-water-consuming appliances in some existing and all new housing, an active water conservation program implemented by Rancho Water, and expansion of the District's recycled water system. Table 2-5 illustrates Rancho Water's FY25 demands.

Table 2-5
Water Use - Actual 2025
(DWR Table 4-1)

Use Type	Level of Treatment	AF
Demands		
Single Family Residential	Drinking Water	21,361
Multi-Family Residential	Drinking Water	2,214
Agricultural Residential	Drinking Water	6,015
Commercial/Industrial/Institutional	Drinking Water	3,043
Landscape Irrigation	Drinking Water	4,238
Agriculture	Drinking Water	10,465
Other (construction meters, fire flows)	Drinking Water	1,153
Santa Margarita River Discharge	Untreated Water	4,103
Water Loss	Drinking Water	2,995
	Total Potable and Untreated	*55,587*
Landscape Irrigation Recycled*		4,205
	Total Water Demand	**59,791**
Water Use for Storage		
Long-Term Storage		6,190
	Total Water Use 2025	**65,982**

*Does not include recycled water demand internal to the reclamation plants

2.4 Existing and Target Per Capita Water Use

Senate Bill 7 of Special Extended Legislative Session 7 (SBx7-7) introduced standards for water use. These standards are based on gallons per capita per day and target a reduction in gallons per capita per day to be achieved by the year 2020. SBx7-7 was alternatively called “20 by 2020” which encapsulates the idea that the regulation is aimed to reduce water use 20 percent by the year 2020. Despite the tie to the year 2020, SBx7-7 does not have a sunset clause and suppliers will have to demonstrate compliance with SBx7-7 targets in the 2025 UWMP. As documented in the DWR Standardized Table 5-1 (Appendix B), Rancho Water is currently in compliance with SBx7-7 targets.

Consistent with the 2025 UWMP Guidebook, this Plan does not repeat the detailed methodology used to establish Rancho Water’s SB X7-7 baseline periods and water use target. The District’s compliance target remains unchanged from that presented in the 2020 UWMP, as annexations occurring since that time did not meet the conditions requiring recalculation or rebaselining. Accordingly, SB X7-7 reporting in this UWMP continues to reflect the previously established service area and target. To maintain continuity with prior planning documents and provide historical context, relevant excerpts describing the development of the baseline and target from the 2020 UWMP are included in Appendix H. This approach is consistent with current Guidebook direction to focus on demonstrating ongoing compliance while referencing, rather than reproducing, prior analyses.

2.5 Projected Water Use

2.5.1 Normal Year

Projected water demands in a normal year are shown in Tables 2-6 and 2-7 These projections include current water conservation efforts, including regional conservation efforts with wholesale partners. Current efforts and water savings are articulated in Section 6. Table 2-6 provides estimates of demands in each year from 2030 to 2050 assuming growth in the service area consistent with the applicable General Plans (see Section 1.7). Projections assume similar monthly customer water use as occurred from 2009 to 2025. In projecting demands Rancho Water assessed specific land use categories in the Rancho Water service area (see Table 2-6). Rancho Water has also provided this data in DWR's standardized usage categories (see Table 2-7).

Table 2-6
Projected Water Use 2030 to 2050 by Rancho Water Service Area Land Use - Normal Year (AF) Use
(DWR Table 4-2)

Land Use	2030	2035	2040	2045	2050
Residential					
Ag/Vineyard Planning Areas	3,050	3,050	3,050	3,050	3,050
Estate 20	109	259	499	748	1,004
Estate 10	18,001	18,215	18,892	19,590	20,308
Estate 5	2,403	2,497	2,647	2,802	2,963
Estate 2	3,727	3,800	3,916	4,036	4,160
Low Density	587	612	653	696	739
Medium Density	15,448	15,567	15,760	15,961	16,168
High Density	1,712	1,748	1,808	1,870	1,934
Multi-Family	1,590	1,600	1,617	1,635	1,653
Non-Residential					
Commercial	1,816	1,822	1,822	1,822	1,822
Business Park	1,973	2,016	2,016	2,016	2,016
Industrial	82	88	88	88	88
Civic/Institutional	1,121	1,148	1,148	1,148	1,148
Right-of-Way	0	0	0	0	0
Open Space - Conservation	257	311	311	311	311
Open Space - Conservation Habitat	0	0	0	0	0
Open Space - Native	0	0	0	0	0
Open Space - Recreational	2,853	2,880	2,880	2,880	2,880
Altair Specific Plan	833	833	833	833	833
Harveston Specific Plan	291	291	291	291	291
Old Town Specific Plan	254	254	254	254	254
Temecula Creek Inn Specific Plan	789	789	789	789	789
Twelve Oaks Specific Plan	793	793	793	793	793
Uptown Jefferson Specific Plan	2,264	2,264	2,264	2,264	2,264
Vineyards Specific Plan	421	770	770	770	770
Other (fire flows, construction meters) [1]	972	972	972	972	972
Santa Margarita River Discharge [2]	4,000	4,000	4,000	4,000	4,000
Water Loss [3]	3,681	3,755	3,844	3,937	4,032
Total Potable and Untreated	*69,025*	*70,331*	*71,916*	*73,552*	*75,240*
Landscape Irrigation Recycled [4]	4,237	4,295	4,353	4,412	4,472
Total Demand	**73,263**	**74,626**	**76,270**	**77,964**	**79,712**

Notes:

1. Other flows assumed to be same as average FY2021 to FY2025.
2. Santa Margarita River Discharge estimated based on historical trends.
3.. Water Loss assumed to be same percentage as occurred FY2021 to FY2025.
4. See Table 4-5. Does not include water used internally at the recycled water plant. Anticipate demands over 4,500 AF will be supplemented with raw well water.
:

Table 2-7
Projected Water Use 2030 to 2050 by Standard Water Use Types - Normal Year (AF)
(DWR Table 4-2)

	Use Type	2030	2035	2040	2045	2050
Single Family Residential	Drinking Water	29,615	30,024	31,096	32,203	33,345
Multi-Family Residential	Drinking Water	3,302	3,348	3,425	3,504	3,587
Agricultural Residential	Drinking Water	3,050	3,050	3,050	3,050	3,050
Commercial/Industrial/Institutional	Drinking Water	8,724	9,154	9,154	9,154	9,154
Landscape Irrigation	Drinking Water	3,110	3,190	3,190	3,190	3,190
Agriculture	Drinking Water	12,573	12,839	13,185	13,542	13,910
Other (fire flows, construction meters) [1]	Drinking Water	972	972	972	972	972
Santa Margarita River Discharge [2]	Untreated Water	4,000	4,000	4,000	4,000	4,000
Water Loss [3]	Drinking Water	3,681	3,755	3,844	3,937	4,032
Total Potable and Untreated		69,025	70,331	71,916	73,552	75,240
Landscape Irrigation Recycled [4]	Non-Potable	4,237	4,295	4,353	4,412	4,472
Total Demand		***73,263***	***74,626***	***76,270***	***77,964***	***79,712***

Notes:

1. Other flows assumed to be same as average FY2020 to FY2025.

2. Santa Margarita River Discharge estimated based on historical trends.

3.. Water Loss assumed to be same percentage as occurred FY2020 to FY2025.

4. See Table 4-5. Accounts for infill of existing recycled water system. Does not include water used internally at the recycled water plant. Anticipate demands over 4,500 AF will be supplemented with raw well water.

2.5.2 Dry Years

Historically, hot and dry weather periods, water usage increases. The amount of increase varies according to the number of consecutive years of hot and dry weather, as well as any conservation activities imposed. During cool-wet years, historical water usage has decreased for several reasons, including less water usage for external landscaping.

During a dry year, there is an increase in irrigation demand throughout Rancho Water due to low precipitation levels. Consistent with historic trends, almost all demands are anticipated to increase by 5% during a single-dry year. The exceptions are the following uses: other (fire flows and construction meters) and Santa Margarita River Discharge, which are expected to be similar to normal year use. Table 2-8 projects demands during dry years.

Table 2-8
Projected Water Use 2030 to 2050 by Standard Water Use Types - Dry Years (AF)

	Use Type	2030	2035	2040	2045	2050
Single Family Residential	Drinking Water	31,095	31,525	32,651	33,813	35,013
Multi-Family Residential	Drinking Water	3,467	3,515	3,596	3,680	3,766
Agricultural Residential	Drinking Water	3,202	3,202	3,202	3,202	3,202
Commercial/Industrial/Institutional	Drinking Water	9,160	9,612	9,612	9,612	9,612
Landscape Irrigation	Drinking Water	3,265	3,350	3,350	3,350	3,350
Agriculture	Drinking Water	13,202	13,481	13,844	14,219	14,605
Other (fire flows, construction meters) [1]	Drinking Water	972	972	972	972	972
Santa Margarita River Discharge [2]	Untreated Water	4,000	4,000	4,000	4,000	4,000
Water Loss [3]	Drinking Water	3,862	3,939	4,034	4,131	4,231
Total Potable and Untreated		*72,225*	*73,597*	*75,261*	*76,978*	*78,750*
Landscape Irrigation Recycled [4]	Non-Potable	4,237	4,295	4,353	4,412	4,472
Total Demand		***76,463***	***77,891***	***79,614***	***81,390***	***83,223***

Notes:

1. Other flows assumed to be same as average FY2020 to FY2025.

2. Santa Margarita River Discharge estimated based on historical trends.

3.. Water Loss assumed to be same percentage as occurred FY2020 to FY2025.

4. See Table 4-5. Does not include water used internally at the recycled water plant. Anticipate demands over 4,500 AF will be supplemented with raw well water.

2.6 Low-Income Projected Water Demands

Senate Bill 1087 requires that water use projections of an UWMP include the projected water use for single family and multi-family residential housing for lower income households as identified in the housing element of any city or county in the service area of the supplier.

The County of Riverside updated its housing element in 2024. The housing element estimates that approximately 41.1% of all households in western Riverside County are extremely low, very-low, or low-income households (County of Riverside Housing Element 2021-2029, Technical Background Report, Table P-13).

The City of Murrieta updated its housing element in January 2023. The housing element estimates that 26.6% of all households in the City of Murrieta are extremely low, very-low, or low-income (City of Murrieta 2021-2029 Housing Element, Table 2-12).

The City of Temecula updated and adopted its housing element In December 2022. The housing element estimates that 22.6% of all households in the City of Temecula are extremely-low, very-low, or low-income (City of Temecula General Plan Housing Element, Table 15).

Table 2-15 quantifies the number of lower income housing units within the Rancho Water service area, delineated by the land use planning agency with jurisdiction. While all of the City of Temecula is within the District's service area, only portions of the County of Riverside and City

of Murrieta are within the District's service area. For the City of Murrieta and the county of Riverside, the lower income units within the service area were calculated from the total units within the service area and the overall percentage of lower income to total housing units for each jurisdiction.

The number of lower income housing units are projected through 2050, based on the appropriate residential growth rates developed by SCAG. Information on housing unit is utilized to provide an estimate of water demands by low-income households (see Table 2-9).

Table 2-9
Projected Water Use Low Income Households (AF)

Land Use Jurisdiction	2030	2035	2040	2045	2050
Number of Lower Income Housing Units Projected					
City of Temecula					
Number of Housing Units	33,645	34,359	35,283	36,237	37,222
Number of Housing Units in Rancho Water Service Area (100%)	33,645	34,359	35,283	36,237	37,222
Number of Housing Units Low Income (23%)	7,604	7,765	7,974	8,190	8,412
City of Murrieta					
Number of Housing Units	32,415	33,103	33,994	34,913	35,861
Number of Housing Units in Rancho Water Service Area (35%)	11,345	11,586	11,898	12,219	12,551
Number of Housing Units Low Income (27%)	3,018	3,082	3,165	3,250	3,339
Co. of Riverside					
Number of Housing Units	71,692	73,200	75,180	77,230	79,350
Number of Housing Units in Rancho Water Service Area (8%)	5,735	5,856	6,014	6,178	6,348
Number of Housing Units Low Income (41%)	2,357	2,407	2,472	2,539	2,609
Total Lower Income Housing Units in Rancho Service Area	12,979	13,254	13,611	13,979	14,360
Low Income Housing Units as Percent all Housing in Service Area	26%	26%	26%	26%	26%
Water Demands					
Estimated Low-Income Household Water Use - Normal Year (AF)	9,202	9,319	9,613	9,917	10,230
Estimated Low-Income Household Water Use - Dry Year (AF)	9,663	9,785	10,094	10,412	10,742

Rancho Water will not deny or condition approval of water services, or reduce the amount of services applied for by a proposed development that includes housing units affordable to lower income households unless one of the following occurs:

- Rancho Water specifically finds that the lower income household does not have sufficient water supply
- Rancho Water is subject to a compliance order issued by the Division of Drinking Water Services that prohibits new water connections

- The applicant has failed to agree to reasonable terms and conditions relating to the provision of services

- Rancho Water finds the lower income household is not in compliance with the current Water Shortage Contingency Plan

- Where Rancho Water is required, pursuant to Government Code Section 65589.7 to grant priority for the provision of water and sewer services to proposed developments that include housing units affordable to lower income households.

Section 3: Water Resources

3.1 Overview

The District currently obtains its water supplies from the following primary water sources: 1) local groundwater from the Temecula Valley Groundwater Basin; 2) imported SWP and Colorado River water from MWD through EMWD and Western Water; and 3) recycled water from both the District and EMWD. Each of these water sources is described in the following sections.

Imported water, both treated and untreated, is delivered through multiple Metropolitan Water District turnouts located within the service areas of EMWD and Western Water. Groundwater supplies are produced from a continually evolving portfolio of District-owned wells. In 2025, this portfolio included 40 active wells, 3 under construction and a number of wells offline due to water quality impairments. Recycled water is generated at the Santa Rosa Regional Water Reclamation Facility and purchased from EMWD's Temecula Valley Regional Reclamation Facility.

The District owns and operates an extensive storage system consisting of numerous storage reservoirs and one surface reservoir, Vail Lake. Vail Lake has a current storage capacity of 31,295 acre-feet and is used to support groundwater recharge through infiltration basins downstream from the lake's release facilities.

Historically, groundwater has supplied between 25% and 40% of the District's total water supply, and imported water has supplied between 60% and 70%. In 2025, recycled water comprised approximately 8% of the District's water supply portfolio. Rancho Water's actual supplies in FY25 are provided in Table 3-1.

Imported water originates outside of the Santa Margarita River Watershed (generally water from the Colorado River and the SWP). Imported water is acquired from the member agencies of MWD. For the District, its member agencies are Western Water for the Santa Rosa Division and EMWD for the Rancho Division.

Imported water supplied to the District originates from MWD's Lake Skinner Reservoir and Water Treatment Facility, with supplemental storage provided by Diamond Valley Lake. From Lake Skinner, MWD operates a network of major conveyance facilities that convey water south toward San Diego County, including two raw water pipelines (Pipeline Nos. 5 and 6) and two treated water pipelines (Bypass Pipeline No. 3 and Pipeline No. 4). Bypass Pipeline No. 3 is ultimately planned to connect to MWD's San Diego Pipeline No. 3 in a future conversion project.

The District receives imported water directly at MWD turnouts located within the service areas of EMWD and Western Water; imported supplies are not conveyed through facilities owned by these retail agencies. Imported treated water deliveries to the District vary seasonally in response to system demand. During winter months, when water demands are typically lower, the District relies primarily on local groundwater resources and may suspend imported water deliveries entirely. As demands increase throughout the year, imported water supplies are used to supplement groundwater production and meet daily and seasonal fluctuations.

Table 3-1
Retail Water Supplies Utilized FY25 (AF)
(DWR Table 6-8)

		2025	
Water Supply	**Additional Detail on Supply**	*Actual Volume (AF)*	*Water Quality*
Imported water	Treated water for delivery to RCWD retail area	20,080	Drinking Water
Imported water	Untreated for groundwater recharge and recovery	15,573	Other Non-Potable
Imported water	Untreated for groundwater recharge and storage	6,190	Other Non-Potable
Imported water	Untreated Imported for release as makeup water to Santa Margarita River	4,103	Other Non-Potable
Groundwater (not desalinated)	Native groundwater	15,831	Drinking Water
Groundwater (not desalinated)	Artificially recharged groundwater. No volume listed because this is already accounted for in "Imported water - Untreated for groundwater recharge" and “Imported water – Untreated for groundwater recharge and storage”	**	Other Non-Potable
Surface Water (not desalinated)	Used for groundwater recharge. No volume listed because this is already accounted for in "Groundwater (not desalinated) - Native groundwater"	***	Other Non-Potable
Recycled Water		4,205	Recycled Water
	Total	**65,982**	

**Groundwater that is artificially recharged using imported water is only accounted for once, under imported water.
***Surface water used for groundwater recharge is only accounted for as a groundwater sources.

3.2 Imported Water

The District initiated the purchase of imported water from MWD in 1977, and this water comes to the Rancho Water service area through two wholesale agencies EMWD and Western Water.

The District currently has a connected treated water capacity for up to 205 cfs (peak flow); however, there are flow restraints in some of the pipelines, reduced pipeline capacity in summer months and policies that place additional capacity limitations on the operation of the imported water turnouts. In particular, there are stipulations that flow changes at the turnout facilities are

limited to 10% above or below the previous 24-hour average. In addition, the District also has a connected peak capacity of 95 cfs of untreated imported water.

Over the 2021-2025 period, the District received an average of approximately 28,200 AFY from EMWD and approximately 13,400 AFY from Western Water.

As required by the CWC, the District communicated with its wholesale agencies regarding imported water supply available to the District. These water supply projections provided from the District's wholesale agencies were utilized as the District's source for reasonably available imported water supply data.

Rancho Water is also a participant in MWD Cyclical Storage Program. Through this program MWD and Rancho Water have agreed to "pre-store" water in a given groundwater basin. The pre-stored water is later withdrawn by Rancho Water. This participation allows Rancho Water to essentially purchase additional untreated imported water, bank this water, and then recover it as groundwater later. Because this imported water is used to enhance groundwater, it is detailed in Section 3.2. This program has been used by MWD and Rancho Water in the last 5 years, but no water was stored or withdrawn in 2025.

3.2.1 Delta Reliance

A portion of the water received by Rancho Water from its wholesale water suppliers comes from the Sacramento-San Joaquin Delta (Delta). The 2020 and 2025 UWMP Guidebook describes how urban water suppliers that anticipate participating in or receiving water from a "covered action" related to the Delta should provide information in their UWMPs to demonstrate consistency with *Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance* (Reduced Reliance Policy). DWR has suggested that any entity receiving imported water from the SWP should anticipate being part of a "covered action".

Using information from EMWD and Western Water, Rancho Water has estimated the volume of State Water Project received in past years. In Appendix E Rancho Water:

- Establishes a base period for evaluation of Delta water use in the District
- Provides data on past service area demands and population
- Provides data on State Water Project water received in the past
- Provides a projection on service area demands through FY2050
- Provides information on supplier contribution to regional self-reliance (local supplies brought online 2010-2050 in 5-year increments)
- Projects SWP water that could be received by Rancho Water through FY2050

3.2.2 Reliability – Water Quality

Imported water supplied to the District originates from MWD's Lake Skinner Reservoir and Water Treatment Facility, with supplemental storage provided by Diamond Valley Lake. This water has consistent of high quality and is a reliable source of supply for the District. The Imported water provided from MWD's Lake Skinner Reservoir and Water Treatment Facility is a blend of State Water Project and Colorado River water.

Untreated imported water sources may be affected by invasive species such as quagga mussels. However, MWD actively monitors these water quality issues and has implemented water management strategies to minimize potential impact on water quality and supply reliability. As reported in MWD's Annual Water Quality Report and the District's Annual Consumer Confidence Report for calendar year 2024, all water produced and delivered by the District meets or exceeds the standards for public drinking water.

Both Rancho Water and Metropolitan Water District monitor for chemicals of emerging concern, including per- and polyfluoroalkyl substances (PFAS). At the federal level, the U.S. Environmental Protection Agency has established enforceable drinking water standards for six PFAS compounds. California has not adopted separate state maximum contaminant levels for these compounds, but, instead, implements notification and response levels that, in some cases, are more protective, and which include additional monitoring and public notification requirements.

Rancho Water conducts routine monitoring of all District wells and proactively removes wells from service before regulatory limits are reached. The District's extensive well network, combined with access to treated imported water supplies, provides operational flexibility and system resilience, allowing it to continue delivering treated water that meets or exceeds all applicable state and federal drinking water standards.

3.2.3 Reliability – Other

The imported supplies from EMWD and Western Water ultimately depend on supply from MWD. Besides water quality, climate change, and extended drought, MWD's 2025 UWMP identified reliability risks related to pumping restrictions in the Sacramento-San Joaquin River Delta System.

3.2.4 Reliability – Year Type

EMWD and Western Water and their member agencies, including the District, expressly rely upon MWD's 2025 UWMP in estimating future imported water availability to its service area. Specifically, MWD has concluded that it has supply capabilities sufficient to meet expected demands from 2030 through 2050 under normal, single-dry year and five-year drought scenarios (2025 MWD Draft UWMP, Tables 2-4, 2-5, and 2-6).

Based on historical supply reliability data consistent with MWD, the District has identified supply reliability for imported water as 100% in all year types. Anticipated MWD imported supplies are summarized in Table 3-3. As imported untreated water is utilized for the District's artificial recharge of the Temecula Valley Groundwater Basin, imported water reliability affects the reliability of groundwater recharge (this is reflected in Section 3.3.4 and Table 3-6).

Table 3-2
Basis of Water Year Data for Imported Water and Artificial Groundwater Recharge
(DWR Table 7-1)

Year Type	Base Year *(Last year of the fiscal year)*	Available Supplies if Year Type Repeats	
		Volume Available (AF) [1]	*Percent of Average Supply (%)*
Average Year	1922-2004	56,650 to 64,650	100%
Single-Dry Year	1977	56,650 to 64,650	100%
Multiple-Dry Years 1st Year	1988	56,650 to 64,650	100%
Multiple-Dry Years 2nd Year	1989	56,650 to 64,650	100%
Multiple-Dry Years 3rd Year	1990	56,650 to 64,650	100%
Multiple-Dry Years 4th Year	1991	56,650 to 64,650	100%
Multiple-Dry Years 5th Year	1992	56,650 to 64,650	100%

Notes:

1. Will vary by year. Normal Year Supply 2030 estimated as 56,650 AF, Normal Year Supply 2050 estimated as 62,400 AF.

3.3 Groundwater

Historically, groundwater pumping has provided a significant portion of the District's overall water demand. The District receives groundwater from the Temecula Valley Groundwater Basin (Basin 9-005), as identified in California's Groundwater Bulletin 118. The Basin underlies several valleys in southwestern Riverside County and a portion of northern San Diego County, within the Santa Margarita River Watershed (see Figure 1-3). According to Bulletin 118 the Temecula Valley Groundwater Basin is a "low priority basin." Per the Sustainable Groundwater Management Act the Temecula Valley Basin is considered "adjudicated." More information on the adjudication is provided below.

The Temecula Valley Basin is managed as a series of nine hydrologic subunits with different pumping volumes. Two major aquifers in the Temecula Valley Basin, the Temecula and the Pauba, have been the subject of a number of studies over the years. The Pauba aquifer, covering approximately 18 square miles, is "comprised of younger alluvial sediments that occur along the principal streams of the watershed. Unconfined groundwater occurs within the sediments of the highly porous Pauba aquifer, and well yields typically range from 500 to 2,000 gpm [gallons per minute]. The Pauba aquifer reaches depths of up to 500 feet" (Local Agency Management Programs Recommendations to the County of Riverside for the Rancho California Water District Service Area, October 9, 2014, Page 14). The Pauba aquifer is underlain by the confined Temecula aquifer. The Temecula aquifer, approximately 100 square miles, "consists of unconsolidated sediments that extend from 500 feet in depth to depths exceeding 2,000 feet" (Local Agency Management Programs Recommendations to the County of Riverside for the Rancho California Water District Service Area, October 9, 2014, Page 14).

In addition to the District, other agencies pump from the basins including Western Water, Pechanga Band of Luiseño Mission Indians (Pechanga), and other private pumpers. Accounting

for these users, the total natural yield available to the District varies, and is estimated to average approximately 25,000 AFY.

The Basin has been governed under court jurisdiction since 1928, as part of the Santa Margarita River Watershed system. In 1940, a Stipulated Judgment (1940 Judgment) was issued directing the use and allocation of groundwater in the region. Although considered an adjudicated basin, specific water rights have not been assigned. In 1963, a Final Judgment and Decree was issued further defining the use of groundwater in the region, and in April 1966, a Modified Final Judgment and Decree (Fallbrook Case) was entered incorporating interlocutory judgments and the 1940 Stipulated Judgment.

The judgments were followed by years of litigation and disagreements between several multiple parties over ownership, best use of the water in the watershed basins, and whether the judgments fully provided resolution to meet the needs of the parties for effective water management. After several years, a settlement agreement, "*Cooperative Water Resource Management Agreement between Camp Pendleton and Rancho California Water District*," was reached and executed in March 2002. This agreement supersedes the previous judgments and remains in place today, governing water flow in the Santa Margarita River and use of the Temecula Valley Groundwater Basin.

In December 2006, a '*Groundwater Management Agreement between Rancho California Water District and the Pechanga Band of Luiseño Mission Indians*' was executed to govern the management of groundwater pumping from the Wolf Valley Groundwater Basin in a manner not to exceed the safe yield that protects groundwater resources in the Wolf Valley Groundwater Basin for present and future uses. Subsequently on November 29, 2017 a Settlement Agreement was reached among the Pechanga Band of Luiseño Mission Indians, Rancho California Water District, and the United States of America, designating total Tribal Water Right to up to 4,994 AFY, and to be made up of groundwater and MWD imported water (this does not include recycled water or local granitic wells). This settlement agreement resulted in the *Amended and Restated Groundwater Management Agreement between Rancho California Water District and the Pechanga Band of Luiseño Mission Indians* whereby up to 75% of the Wolf Subbasin safe yield is designated to Pechanga and 25% designated to Rancho Water.

The annual supply capacity of the Wolf Valley subbasin is currently allocated between the District and the Pechanga Band of Luiseño Mission Indians.

To further manage water in the region, a Watermaster was assigned by the court to oversee all uses within the Santa Margarita River Watershed, which include three groundwater basins: the Santa Margarita Groundwater Basin, the Anza Groundwater Basin, and the Temecula Valley Groundwater Basin. The Watermaster prepares the "Santa Margarita Watershed Annual Watermaster Report" (Annual Watermaster Report), providing annual reporting of water conditions in the watershed, but does not manage the groundwater basins. The Annual Watermaster Report, prepared pursuant to the U.S. District Court Order, March 13, 1989, includes information on surface and subsurface water, imports and exports, water rights, water production and use, threats to water supply, water quality, review of agreements, and a Watermaster 5-year projection of activities. The Court has retained jurisdiction over all surface flows of the Santa Margarita River Watershed and all underground waters determined by the Court to be subsurface flow of streams or creeks or which is determined by the Court to add to, support, or contribute to the Santa Margarita River stream system. Local vagrant groundwaters that do not support the Santa Margarita River stream system are outside the Court jurisdiction.

Table 3-3 summarizes the management agencies and their respective role within the Temecula Valley Groundwater Basin.

Table 3-3
Management Agencies in the Temecula Valley Groundwater Basin

Agency	Role/Responsibility
Santa Margarita River Watershed Watermaster	Court-appointed Watermaster for oversight and administration of water rights
Santa Margarita River Watershed Steering Committee	Assist the Court and the Watermaster in administering the water rights
Rancho California Water District	Prepare Groundwater Audit and a Recommended Groundwater Production Report for operation of District groundwater wells and recharge facilities

The following documents, as referred to in this section and attached as Appendix F, support the management of the Temecula Valley Groundwater Basin:

1. Santa Margarita River Watershed Annual Watermaster Report, Water Year 2022-2023, Michael Preszler, Watermaster, July 2025.
2. Recommended Ground Water Production, Fiscal Year July 1, 2025 through June 30, 2026, Rancho California Water District, January 2025.
3. Cooperative Water Resource Management Agreement between Camp Pendleton and Rancho California Water District, Calendar Year 2014.
4. Permit for Diversion and Use of Water, Amended Permit 7032, Temecula Creek/Santa Margarita River for use in Vail Lake and District M&I by Rancho California Water District, April 22, 2009 and 1946 Application to Appropriate Unappropriated Water.
5. Pechanga Water Rights Settlement Agreement (Settlement Agreement). The Settlement Agreement quantifies the Tribe's reserved water rights in the Santa Margarita River Watershed (4,994 acre-feet per year) and provides the Tribe with rights to water that are equal to those set forth in the original federal court Fallbrook Decree. The Settlement Agreement also authorizes necessary infrastructure to guarantee a permanent supply of water to Pechanga through cooperative agreements with local water providers, including Rancho Water, EMWD and the MWD. The Settlement Agreement provides for a coordinated effort by the parties to manage the water within the Santa Margarita Basin that is intended to bring all residents of the Pechanga Reservation a safe and dependable water supply for the future. The Settlement Agreement assigns 75% of the Wolf Subbasin safe yield to Pechanga Tribe and 25% of the Wolf Subbasin safe-yield to Rancho Water.

3.3.1 Groundwater Recharge

Groundwater Recharge is the managed and intentional replenishment of natural groundwater supplies using man-made conveyances such as infiltration basins or injection wells. If all, or a portion of the groundwater recharge water is subsequently pumped out of the basin in the same year, that water will be reported by the pumping agency as a supply from groundwater. Rancho Water stores local runoff (passively) in Vail Lake to support groundwater recharge and has the ability to store imported water there as well.

Vail Lake was created through the construction of Vail Dam on Temecula Creek. The State Water Resources Control Board (SWRCB) issued an appropriation permit (No. 7032) in 1948 and an amended permit in 2009. Currently Vail Dam is operated under an Interim Operation Restriction Plan (IORP), as submitted to the Division of Safety of Dams (DSOD) in 2014. The spillway elevation for Vail Dam is 1472.59 ft (NAVD88 [1]) and the maximum operating level under the IORP is 1457.6 ft (NAVD88). This currently limits storage in the reservoir to 31,395 AF.

Groundwater Recharge with Native Water from Vail Lake

Permit No. 7032 grants an appropriate storage right of 40,000 AFY from November 1st to April 30th, points of diversion and re-diversion, and place and purpose of use. During these months, water releases from Vail Lake are discharged into either outfall piping, which conveys the flows directly to the Upper VDC groundwater recharge site, or the Temecula Creek. Flows to the Temecula Creek either percolate into the groundwater basin or continue downstream to the Santa Margarita River and ultimately the Pacific Ocean. The contribution of the Vail Lake water supply is reflected in the native groundwater produced from the Temecula Valley Groundwater Basin and is not accounted for as a separate water source. From May through October, existing state permits prohibit storage and require inflow to pass through Vail Lake to Temecula Creek.

Groundwater Recharge with Imported Water

Rancho Water also artificially recharges the Pauba Valley Basin with untreated imported water for enhanced groundwater production. The District purchases imported water from the MWD and delivers it from the San Diego aqueduct turnout EM-21 to the Valle de Los Caballos recharge basins. Rancho Water has two groundwater recharge sites: the Upper VDC in the easternmost area of the Pauba Valley portion of the Temecula Valley Groundwater Basin, and the Lower VDC, approximately 2 miles to the west.

Until 2022, groundwater recharge with imported water was pumped out of the Temecula Valley Groundwater Basin in the same year. Starting in 2022 Rancho Water has been able to recharge more water than recovered and leave water in storage to improve the groundwater basin. In FY25, 15,573 AF was purchased and recharged and recovered, and 6,190 AF recharged but left in storage. Accordingly, the imported water used for groundwater recharge has reliability similar to all MWD imported water in normal, single-dry, and multi-dry years.

Over the past 5 years, this supplemental water provided an average of 19,000 AFY of artificial groundwater recharge.

Facilitating artificial groundwater recharge is Rancho Water's participation in two Cyclical Storage Agreements.

- Cyclical Agreement between MWD, EMWD, and Rancho Water. Under this agreement MWD can pre-deliver up to 30,000 AF to EMWD. For storage this water goes to Rancho Water groundwater basins. MWD delivers the water in advance of any demands by EMWD or its retail agency, Rancho Water. Rancho Water has the opportunity to recover

[1] The North American Vertical Datum of 1988 is a standard for elevation measurements across the United State, Canada, and Mexico.

and use the groundwater rather than purchasing treated imported water. As Rancho Water recovers groundwater it is "debited" off the water in the cyclical account. At no time can the amount of water in the account exceed 30,000 AF.

- Cyclical Agreement between MWD, Western Water, and Rancho Water. Under this agreement MWD can pre-deliver up to 20,000 AF to Western Water. For storage this water goes to Rancho Water groundwater basins. MWD delivers the water in advance of demands by Western Water or Rancho Water. Rancho Water can then utilize the water and this use is debited off the cyclical account.

A significant aspect of the District's annual budget process is the determination of the quantity of groundwater that will be produced. Each year, staff and the District's consulting hydrogeologist jointly prepare an audit of groundwater resources at the conclusion of the water year (year ending September 30). The underlying philosophy guiding the audit has been, and continues to be, one of sound basin management. This involves operating the groundwater basin within safe yield limits to avoid creating a permanent overdraft or other undesirable condition, such as water quality degradation, reduction of long-term production capacity, or land subsidence. Determination of the amounts of groundwater hydrologically available to the District is an ongoing process of constant evaluation and review.

Table 3-4 summarizes the quantity of both native and recovered groundwater pumped by the District over the past 5 years.

Table 3-4
Groundwater Volume Pumped (AF per FY)
(DWR Table 6-1)

Groundwater Type	Location or Basin Name	2021	2022	2023	2024	2025
Alluvial Basin	Temecula Valley Groundwater Basin	31,588	31,912	30,901	30,121	31,251

3.3.2 Reliability – Water Quality

The District undertakes thoughtful and calculated measures to safeguards its water supply through collecting and analyzing water samples, in amounts greater than the minimums required by the EPA and SWRCB Division of Drinking Water. Rancho Water collects more than 2,000 samples a year for analysis of 120 different contaminants including bacteria, metals, organic chemicals, pesticides, and aesthetic-related substances. As reported in the District's Annual Consumer Confidence Report for calendar year 2024, all water produced and delivered by the District meets or exceeds the standards for public drinking water.

Groundwater in most of the Pauba aquifer and the Temecula aquifer is generally suitable for domestic and irrigation uses. Constituents of concern include:

- Arsenic: Arsenic has been detected above the MCL in four of the District's wells. The District uses blending with non-compromised water sources to achieve regulatory goals, or shuts down the well if blending is not feasible. Blending is typically not feasible where there are infrastructure limitations.

- Fluoride: Fluoride occurs in the groundwater basins as a result of natural erosion. Fluoride above the MCL has been detected in two active wells. The water from these wells is blended with water from other wells to reduce the level of fluoride to acceptable levels.

- Manganese and Iron: Rancho Water treats water from Well 102 to reduce manganese and iron levels.

- PFAS. In past years, PFAS in exceedance of MCLs have been detected in five of the District's wells. These wells have been removed from service, pending construction of treatment facilities. Water quality is not anticipated to limit use of groundwater supplies.

3.3.3 Reliability – Other

The groundwater basin from which Rancho uses water is a managed basin. Currently regulatory changes are not considered a risk to the reliability of the supply.

3.3.4 Reliability – Year Type

As described above, groundwater supplies relate to the natural safe-yield and are enhanced by artificial recharge.

Native Groundwater

The District's current native groundwater extraction has historically averaged 22,000 to 25,000 AFY and is anticipated to remain consistent in a single-dry water year. However, the Basin has been drawn down over multiple-dry water years and, therefore, extraction is reduced in years 3 through 5 of a multiple-dry year by about 14%, 23%, and 32%, respectively, as the available draft from Vail Lake for recharge is diminished. The anticipated amount of native groundwater available in different year types is presented in Table 3-5.

Artificial Groundwater Recharge and Recovery

Rancho Water utilizes untreated imported water for artificial groundwater recharge. EMWD and Western Water and their member agencies, including the District, expressly rely upon MWD's 2025 UWMP in estimating future imported water availability to its service area, including for groundwater recharge. MWD has concluded that it has supply capabilities that would be sufficient to meet expected demands from 2030 through 2050 under normal, single-dry year and five-year drought scenario (2025 MWD UWMP, Tables 2-5, 2-6, and 2-7).

Based on historical supply reliability data consistent with MWD, the District has identified supply reliability for imported water as 100% in all year types. Anticipated MWD imported supplies available for groundwater recharge are summarized in Table 3-2.

Table 3-5
Basis of Water Year Data for Native Groundwater
(DWR Table 7-1)

Year Type	Base Year *(Last year of the fiscal year)*	Available Supplies if Year Type Repeats	
		Volume Available (AF)	*Percent of Average Supply (%)*
Average Year	2005-2015	22,000	100%
Single-Dry Year [a]	2013	22,000	100%
Multiple-Dry Years 1st Year	2012	22,000	100%
Multiple-Dry Years 2nd Year	2013	22,000	100%
Multiple-Dry Years 3rd Year	2014	19,000	86%
Multiple-Dry Years 4th Year	2015	17,000	77%
Multiple-Dry Years 5th Year	2016	15,000	68%

a. 2013 was lowest groundwater production year, numbers adjusted to account for anticipation that future groundwater production will be more similar to last 10 year average pumping

3.4 Local Surface Water

As described in Section 2.2.9, Rancho Water operates one surface water reservoir, Vail Lake. The reservoir is located approximately 10 miles east of Temecula having a watershed area of 318 square miles. Vail Lake was created with the construction of Vail Dam in 1948-1949. The primary purposes of Vail Lake are water supply and recreation. The natural inflow to Vail Lake is from Temecula Creek, Wilson Creek, Kolb Creek, and Arroyo Seco Creek. While Rancho Water has the infrastructure to store imported water in Vail Lake, it has not done so.

Releases from Vail Lake recharge native groundwater. The average annual yield over the past 5 years is 2,641 AFY. The annual yield over the past 5 years has varied from a low of 140 AF to a high of 9,641 AF in 2023. The highest historic yield from Vail Lake was 35,552 AF in 1993.

Vail Lake is currently free of invasive species such as quagga or zebra mussels. The water quality in Vail Lake varies depending on the quantity of inflow, the lake water depth, and upland activities that contribute to sedimentation and pollutant loading.

The reliability of local surface water is accounted for in Section 3.2.2.

3.5 Stormwater

Rancho Water is a “Special District,” organized and operated pursuant to the CWC. Stormwater within the District’s service area is collected by the City of Murrieta, the City of Temecula, and the County of Riverside. The District does not currently divert stormwater for beneficial reuse and has no plans to do so in the future.

3.6 Recycled Water and Reuse

Recycled water is a current and future source for Rancho Water. Recycled water is detailed in Chapter 4.

3.7 Desalinated Water

The District does not operate, nor does it have plans to construct, any desalination facilities for ocean water, brackish surface water, and/or brackish groundwater. Rancho Water is currently capable of extracting and utilizing a sustainable natural yield from the groundwater basin, without the need for energy-intensive desalination.

However, Rancho Water continuously evaluates the potential of different water sources, including local groundwater desalination or a transfer/purchase from existing or future desalination projects. Economic and hydrological conditions can change significantly over time, which can affect not only the price to purchase water, but also the need to treat water to changing standards in order to protect groundwater. As such, the District will continue to evaluate the benefits and costs of desalinated water.

3.8 Transfers and Exchanges

Water transfers and water exchanges are water management concepts with great potential for helping to alleviate water shortages in the region and the Santa Margarita Watershed. Water exchanges allow two agencies, a willing seller of water and a willing buyer, to enter into an exchange agreement that is mutually beneficial for water management of both parties. Water transfers allow an agency to “move” water from one service area to another, even when the two agencies are not connected by any pipelines.

As a water management tool, water transfers can be effective during periods of severe drought or emergencies. Water transfers increase water supply reliability among agencies and can take many forms such as:

- Spot Transfers - a one-time purchase of water, are usually purchased on an as needed basis to offset the effects of drought.
- Option Transfers - buyers purchase a certain amount of water any time during the life of the agreement, paying costs only in those years in which the water is needed.
- Core Transfers - multi-year contracts designed to make a specific amount of water available to the purchaser annually. Buyers must normally pay the costs of transfer every year whether the water is needed or not.
- Storage Transfers - purchasers can place water into storage for future delivery. Storage transfers can be accomplished through either core or option contracts.

Rancho Water is a participant in the Santa Margarita River CWRMA (see Section 2.2.8), which some consider a transfer of water. Aside from the CWRMA, the District does not engage in water transfers with other agencies. In the future, as necessary and appropriate, the Rancho Water could work with its wholesale agencies to initiate transfers and exchanges if needed to increase water supply reliability.

3.9 Planned Water Supply Projects and Programs

Rancho Water regularly undertakes an evaluation of its supplies. The 2012 Upper VDC Conjunctive Use Optimization Study, 2015 Water Facilities Master Plan, and the 2018 Recycled Water Resources Plan were prepared to assist the District in developing a long-term water supply strategy that can meet demands now through 2050. These planned sources are meant to maximize local resources and minimize the need to import water.

While there are options that may be considered by Rancho Water in the future, due to the uncertainty in potential volume supplied and timing, these potential future projects have been excluded in the planned supplies shown in Table 3-6. Potential options may include:

- Land Acquisition for Water Rights: There may be opportunities to acquire land with accompanying water rights that would provide an additional sustainable and reliable source of water for the District. When identified, specific parcels of land should be evaluated for purchase by the District based on current market conditions and projected water transfer costs.

The following near-term projects are included in the planned supplies shown in Table 3-6:

- Groundwater Banking Project. This project will expand existing groundwater banking capability through the addition of new recharge basins and wells. The program is a central component the District's long-term strategy and is designed to enhance long-term supply reliability and operational flexibility. The program focuses on two primary geographic areas: (1) expansion of extraction capacity associated with the UVDC facilities, and (2) development of additional recharge and recovery infrastructure within the Mid-Valley area. Planned improvements at UVDC include the addition of new production wells to increase extraction capability and optimize conveyance integration with existing pump stations and transmission pipelines. While UVDC has historically operated largely as a "put-and-take" system, facilitating short-term management of available supplies rather than long-duration storage, the planned well expansions will improve operational efficiency and drought response capacity.

- The Mid-Valley component of the groundwater banking program is designed to provide true long-term storage and multi-year resiliency. The program includes construction of new recharge basins in the Mid-Valley area, located downgradient of the UVDC facilities and positioned to take advantage of favorable hydrogeologic conditions for percolation and storage. Additional extraction wells will also be developed in the Mid-Valley to enable strategic recovery of banked supplies during single-dry and multiple-dry year conditions. Unlike UVDC's primarily short-cycle operational role, the Mid-Valley facilities are intended to support inter-annual carryover storage, allowing surplus imported or otherwise available supplies to be banked in wetter periods and recovered during extended droughts. Together, these investments strengthen the District's overall supply portfolio, improve reliability under climate variability and regulatory constraints, and align with Plan objectives for long-term water supply resiliency.

Table 3-6
Planned Water Supplies (AFY)
(DWR Table 6-7)

Name of Future Project/Program	*Joint Project with other suppliers?* Y/N	If Yes, Agency Name	Description	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier
Groundwater Banking Project	No	NA	Construction of recharge basins and extraction facilities for groundwater banking	2030	Drought Years/Water Shortage Stage 3 or greater	4,000

3.10 Anticipated Water Supply Sources in Normal, Single Dry, and Multiple Dry Years

Table 3-1, presented earlier, shows Rancho Water supplies in FY25. Tables 3-7, 3-8, and 3-9 provide details on supplies anticipated to be available to Rancho Water in average/normal, single-dry, and multiple dry years.

Table 3-7
Water Supply Estimates - Average/Normal Year (AF)
(DWR Table 6-9)

Water Supply Source	2030	2035	2040	2045	2050
Imported Treated and Untreated Water [a]	56,650	58,250	60,300	62,400	64,650
Groundwater - Native	22,000	22,000	22,000	22,000	22,000
Recycled Water [b]	4,237	4,295	4,353	4,412	4,472
Groundwater Bank [c]	0	0	0	0	0
Total Supplies	***82,887***	***84,545***	***86,653***	***88,812***	***91,122***

a See Table 3-2. This table illustrates supplies RCWD anticipates being available. If not needed to meet demand RCWD will not purchase this volume of imported water.

b See Table 4-5.

c Drought or shortage year only supply.

Table 3-8
Water Supply Estimates - Single-Dry Year (AF)

Water Supply Source	2030	2035	2040	2045	2050
Imported Treated and Untreated Water [a]	56,650	58,250	60,300	62,400	64,650
Groundwater - Native	22,000	22,000	22,000	22,000	22,000
Recycled Water [b]	4,237	4,295	4,353	4,412	4,472
Groundwater Bank [c]	4,000	4,000	4,000	4,000	4,000
Total Supplies	***86,887***	***88,545***	***90,653***	***92,812***	***95,122***

a See Table 3-2. This table illustrates supplies RCWD anticipates being available. If not needed to meet demand RCWD will not purchase this volume of imported water.

b See Table 4-5.

c Drought or shortage year only supply.

Table 3-9
Water Supply Estimates - Multiple-Dry Years (AF)

	Water Supply Source	2030	2035	2040	2045	2050
1st Year	Imported Treated and Untreated Water [a]	56,650	58,250	60,300	62,400	64,650
	Groundwater - Native [b]	22,000	22,000	22,000	22,000	22,000
	Recycled Water [c]	4,237	4,295	4,353	4,412	4,472
	Groundwater Bank [d]	4,000	4,000	4,000	4,000	4,000
	Total Supplies 1st Year Drought	86,887	88,545	90,653	92,812	95,122
2nd Year	Imported Treated and Untreated Water [a]	56,650	58,250	60,300	62,400	64,650
	Groundwater - Native [b]	22,000	22,000	22,000	22,000	22,000
	Recycled Water [c]	4,237	4,295	4,353	4,412	4,472
	Groundwater Bank [d]	4,000	4,000	4,000	4,000	4,000
	Total Supplies 2nd Year Drought	86,887	88,545	90,653	92,812	95,122
3rd Year	Imported Treated and Untreated Water [a]	56,650	58,250	60,300	62,400	64,650
	Groundwater - Native [b]	19,000	19,000	19,000	19,000	19,000
	Recycled Water [c]	4,237	4,295	4,353	4,412	4,472
	Groundwater Bank [d]	4,000	4,000	4,000	4,000	4,000
	Total Supplies 3rd Year Drought	83,887	85,545	87,653	89,812	92,122
4th Year	Imported Treated and Untreated Water [a]	56,650	58,250	60,300	62,400	64,650
	Groundwater - Native [b]	17,000	17,000	17,000	17,000	17,000
	Recycled Water [c]	4,026	4,080	4,136	4,191	4,254
	Groundwater Bank [d]	4,000	4,000	4,000	4,000	4,000
	Total Supplies 4th Year Drought	81,676	83,330	85,436	87,591	89,904
5th Year	Imported Treated and Untreated Water [a]	56,650	58,250	60,300	62,400	64,650
	Groundwater - Native [b]	15,000	15,000	15,000	15,000	15,000
	Recycled Water [c]	3,941	3,994	4,049	4,103	4,165
	Groundwater Bank [d]	4,000	4,000	4,000	4,000	4,000
	Total Supplies 5th Year Drought	79,591	81,244	83,349	85,503	87,815

a See Table 3-3
b See Table 3-6
c See Table 4-5..
d Drought or shortage year only supply.

3.11 Energy Intensity of Rancho Water System

Water energy intensity is the amount of energy, calculated on a whole-system basis, required for use of water in a specific location, such as the Rancho Water service area. DWR provides guidance for calculating the operational energy intensity of water, defined as the total amount of energy expended by the urban water supplier on a per AF basis to take water from the location where the urban water supplier acquires the water to its point of delivery. DWR requires that urban water suppliers only report the energy intensity associated with water management processes occurring within their operational control and not include energy embedded in water supplies purchased from a wholesale water agency. Table 3-10 below provides an estimate, using the total utility approach, of the water energy intensity of Rancho Water's potable water

system. In the table below, Rancho Water's use of natural gas has been converted to kWh assuming a Thermal Unit equals 29.307 kWh. DWR's Energy Intensity spreadsheet is provided in Appendix B as part of the DWR Submittal Tables.

Table 3-10
Energy Intensity Rancho Water Potable Water Supply -Total Utility Approach
(DWR Table O-1B)

Start Date for Reporting	7/1/2024	**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
End Date for Reporting	6/30/2025	*Total Utility*	*Hydropower*	*Net Utility*
Volume of Water Entering Process (AF)		54,215	0	54,215
Energy Consumed (kWh)		56,937,849	0	56,937,849
Energy Intensity (kWh/MG)		3223	0	3223

Section 4: Recycled Water and Reuse

This section of the Plan describes the existing and future recycled water opportunities available to the Rancho Water service area. The description includes estimates of potential supply and demand for 2030 to 2050 in five-year increments, as well as Rancho Water's incentives and optimization plan.

4.1 Recycled Water Sources

Recycled water used by Rancho Water is produced at the Santa Rosa Regional Recycled Agency (SRRRA), SRWRF, or purchased from the Elsinore Valley Municipal water District's (EMWD) TVRWRF. The SRRRA is composed of three member agencies including Western Water, EVMWD, and the District, all of which generate wastewater that is ultimately treated at the SRWRF. Both the TVRWRF and the SRWRF produce disinfected tertiary recycled water meeting the State of California Title 22 regulations for such uses as recreational impoundments and surface irrigation for landscaping, golf courses, agriculture, parks, and playgrounds, as well as certain industrial processes.

Agreements and arrangements affecting Rancho Water's recycled water supply include:

- **Santa Rosa Regional Resources Authority Joint Powers Authority (JPA) Formation Agreement** - Rancho Water is currently supplied with approximately 3,300 AFY from the SRWRF, which is anticipated to ultimately increase to 3,500 AFY, based on the District's proportional share of the SRWRF supply.
- **EMWD Agreements** - EMWD supplies recycled water to Rancho Water. Rancho Water has annual first right of refusal for additional supplies up to a certain specified amount. The existing supply (including exercised options) is up to 2,600 AFY, which can eventually increase to 5,600 AFY through specified annual increases, representing a potential additional future supply of up to 3,000 AFY from the TVRWRF.
- **EMWD/EVMWD/Rancho Water (Three-Party) Agreement** - EVMWD is entitled to the recycled water produced from their wastewater at the SRWRF. This is supplied by EMWD to EVMWD at a separate location and deducted from supply delivered to Rancho Water by EMWD.
- **Pechanga Band of Luiseño Indians (Pechanga) Agreements** - Requires wheeling recycled water to Pechanga, and may allow for additional future supply of up to approximately 300 AFY of recycled water.

4.1.1 Wastewater Collection, Treatment, and Disposal

Wastewater in the Upper Santa Margarita Watershed is collected by a sewer system in more densely populated areas and by septic systems in rural areas. Rancho Water and EMWD together collect all wastewater within the District's water service area. Wastewater collected by Rancho Water is conveyed to a collection system owned and operated by the SRRRA. The SRRRA collection system also conveys flow from EVMWD and Western Water, for ultimate treatment at the SRWRF. Wastewater collected by EMWD is treated at the TVRWRF. Table 4-1 summarizes the wastewater volume collected within the District's service area in FY25.

4.1.1.1 Santa Rosa Water Reclamation Facility

The SRWRF has a current capacity of 5 MGD, or approximately 5,598 AFY. The plant collects flow from areas within portions of the District's service area, Western Water, and EVMWD. The SRRRA owns the SRWRF, as well as approximately 17 miles of gravity mains and the Cal Oaks Lift Station. The SRWRF, gravity mains, and lift station are operated by contract through the District.

The total wastewater treated at the SRWRF in FY25 was 3,671 AF. Of this amount, approximately 1,277 AF came from the Rancho Water service area. All of the recycled water produced at this plant is reused. Seasonal storage ponds near the SRWRF, as well as the Cole Creek Storage Ponds, store effluent during the winter months (low demand period) to prevent discharges and provide recycled water supply to meet peak summer demands.

4.1.1.2 Temecula Valley Regional Water Reclamation Facility

The TVRWRF treats wastewater from a service area that includes the "Golden Triangle" region between Interstates 15 and 215, the Murrieta Hot Springs area, and portions of the Rancho Division of the District. The TVRWRF also receives and treats wastewater generated within the Western Water and EVMWD service areas.

The total wastewater treated at the TVRWRF in FY25 was 16,664 AFY. Effluent from the TVRWRF is conveyed to onsite storage ponds prior to distribution. There are 50 million gallons (MG) of temporary onsite storage capacity. When additional storage is required, recycled water is conveyed to 485 MG storage ponds located 10 miles north in Winchester, providing recycled water supply for irrigation users along the way. When the ponds are full or there is not enough demand, the effluent is discharged to Temescal Creek, a tributary of the Santa Ana River, for ultimate disposal to the Pacific Ocean. Of the total amount of wastewater treated at the TVRWRF in FY25, based on American Community Survey (ACS) data, it is estimated that 9,054 AF was collected from the Rancho Water service area. (personal communication Kylee Wildman, EMWD Water Resources Specialist Associate, October 21, 2025).

Recycled water produced by the TVRWRF is currently distributed to a variety of users, including users in the District's service area. As presented in Table 4-2, the total recycled water generated at the TVRWRF in FY25 was 16,431 AFY.

Table 4-1 documents wastewater collection in 2025; Table 4-2 documents wastewater treatment and discharge in 2025.

Table 4-1
Wastewater Collected within the Service Area FY25
(DWR Table 6-2)

Wastewater Collection			Recipient of Collected Wastewater		
Name of Wastewater Collection Agency	*Wastewater Volume Estimated or Metered*	*Volume of Wastewater (AF) Collected from UWMP Service Area 2025*	*Name of Wastewater Treatment Agency Receiving Collected Wastewater*	*Treatment Plant Name*	*Is WWTP Located Within UWMP Area?*
Rancho California Water District (Rancho Water)	Metered	1,385	SRRRA	SRWRF	Yes
Eastern Municipal Water District (EMWD)	Estimated	9,054	EMWD	TVRWRF	Yes
Total Wastewater Collected from Service Area in 2025:		10,439			

Table 4-2
Wastewater Treatment and Discharge the Service Area FY25
(DWR Table 6-3)

Wastewater Treatment Plant Name/Treatment Level	Discharge Location Name or Identifier	Discharge Location Description	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	2025 Volumes (AF)				
					Wastewater Treated (AF)	Discharged Treated Wastewater (AF)	Recycled Within Service Area* (AF)	Recycled Outside of Service Area* (AF)	Instream Flow Permit Requirement
SRWRF/Tertiary	Temescal Creek	Creek	River or creek outfall	Yes	3,671	0	3,349	322	No
TVRWRF/Tertiary	Temescal Creek	Creek	River or creek outfall	Yes	16,644	0	1,174	15,257	No
				Total	**20,315**	**0**	**4,523**	**15,579**	

Notes:

* Recycled Water system can be supplemented with groundwater.

4.1.1.3 Methods to Encourage Recycled Water Use

Rancho Water encourages recycled water use, where appropriate, through a variety of measures, including:

- Strategic Plan Objective: The District's 2015 Strategic Business Plan, Guiding Principle 1 (Reliability) states that the District will "provide a level of water reliability that ensures customers' water needs are met." Specifically, Strategy 2 of Guiding Principle 1 is to "increase the use of recycled water in the service area" through the following objectives:
    - Process onsite recycled water conversions; and
    - Coordinate recycled service opportunities with area agencies.
- Mandatory Recycled Water Use Policy (Resolution 2007-10-5): The District adopted a policy requiring the use of recycled water for landscape irrigation for new development projects, as well as the retrofit of existing landscape irrigation sites under specific criteria when recycled water is available and permitted.
- Water Supply Assessments: Rancho Water's Water Supply Assessments place conditions on all qualifying new developments to use recycled water as a condition of service where it is available and permitted.
- Rate Incentives: Recycled water is currently priced significantly below $220/AF, the approximate cost of potable water for both municipal and agricultural use.
- Financing Policy (Resolution 2007-10-5): Rancho Water adopted a financing policy for recycled water retrofits, which defines District-sponsored financing for both voluntary and mandatory recycled water retrofits. The District will assist private parties to arrange financing for construction of facilities needed to convert potable demands to recycled water.
- Public Education: Rancho Water actively promotes the use of recycled water within its water education program. The District also places prominent signage at public recycled water use sites promoting the benefits of water recycling.

Rancho Water does not have data to support a projection of how much additional recycled water sales will result from each of the listed encouraged methods of recycled water use. Rancho Water has implemented recycled water incentives for more than a decade but demand for recycled water for irrigation slow. In addition, Rancho Water must manage the volume and location of recycled water use to avoid salt accumulation in groundwater and to avoid discharge to local streams. The anticipated supply that will be provided by recycled water used in this UWMP reflects these challenges.

4.2 Recycled Water Reliability

4.2.1 Water Quality

Water quality regulations in the Santa Margarita River Watershed prevent the District from discharging Title 22 recycled water to local streams. Title 22 and Title 17 of the California Code of Regulations provide the treatment requirements for recycled water, as well as the approved uses based on the level of treatmen, and use area requirements.

The primary water quality component that affects the beneficial use of recycled water in the District's service area is the level of TDS. The recycled water produced by the SRWRF and the TVRWRF generally averages a TDS value of 730 mg/L. Within the District's service area, the San Diego Regional Water Quality Control Board's Basin Plan limits the use of recycled water to hydrologic subbasins with a TDS limit of 750 mg/L. For hydrologic subbasins with a TDS limit of 500 mg/L, the use of recycled water in these areas requires the demineralization of recycled water or an approved recycled water use plan based on the assimilative capacity of the subbasin. Essentially, to use recycled water in some subbasins, the water would need to undergo additional costly treatment. For this reason, Rancho Water is focused on recycled water uses outside of these subbasins in addition to IPR.

Water quality affects how and where Rancho Water implements recycled water programs.

4.2.2 Other

Implementation of *Making Conservation a California Way of Life* aims to decrease indoor water use. This, in turn, may decrease the amount of wastewater and recycled water over time. This may incrementally decrease the amount of wastewater generated per connection. Rancho Water will monitor these trends and plan accordingly. However, it is estimated that growth in overall connections will compensate for changes in wastewater generation per connection.

4.2.3 Year Type

In most years recycled water will provide a consistent water supply. But, based on past droughts, Rancho Water estimates that recycled water generation could decrease by 5% in the 4th year of drought and by 7% in the 5th year of drought, as shown in Table 4-3 below.

Table 4-3
Basis of Water Year Data for Recycled Water

Year Type	Base Year *(Last year of the fiscal year)*	Available Supplies if Year Type Repeats *Volume Available (AF)*	Available Supplies if Year Type Repeats *Percent of Average Supply (%)*
Average Year	2005-2015	4,500	100%
Single-Dry Year	2013	4,500	100%
Multiple-Dry Years 1st Year	2012	4,500	100%
Multiple-Dry Years 2nd Year	2013	4,500	100%
Multiple-Dry Years 3rd Year	2014	4,500	100%
Multiple-Dry Years 4th Year	2015	4,275	95%
Multiple-Dry Years 5th Year	2016	4,185	93%

4.3 Current Recycled Water Use

Currently, recycled water from the SRWRF and TVRWRF is used for agriculture, general irrigation of landscape (such as parks and homeowner association common areas), construction, golf courses, and use within the SRWRF. Table 4-4 compares the 2020 projection of recycled water use with the actual recycled use in FY25.

4.4 Potential and Projected Use

For many years Rancho Water emphasized responsible expansion of the recycled water system to offset use of potable water. Rancho Water has, largely completed projects to expand its recycled water to dedicated irrigation sites. Rancho Water has had recycled water incentives for more than a decade and has seen demand for recycled water for irrigation slow.

Table 4-4
2020 UWMP Recycled Water Use Projection Compared to 2025 Actual (AF)

Beneficial Use Type	2020 Projection for 2025 (AF)	Actual 2025 Use (AF)
Agriculture	109	106
Landscape Irrigation (excl Golf Course)	1,939	1,610
Golf Course Irrigation	2,108	2,406
Commercial Use	4	0
Industrial Use (internal use at recycled water plant)	100	24
Geothermal/Energy	0	0
Seawater Intrusion Barrier	0	0
Recreational Impoundment	0	0
Wetlands or Wildlife Habitat	0	0
Groundwater Recharge	0	0
Surface Water Augmentation	0	0
Direct Potable Reuse	0	0
Other - Construction	15	59
Total	**4,275**	**4,205**

4.4.1 Other Methods to Expand Recycled Water Use

The Recycled Water Resource Plan identified the potential to use recycled water for indirect potable reuse (IPR), specifically groundwater recharge. Rancho Water will consider future IPR if needed to supplement supply.

4.4.2 Projected Recycled Water Demand

Based on the Recycled Water Market Study in the Recycled Water Resources Plan, Rancho Water anticipates that there is a total of 26,038 AFY of recycled water demand. However, it is anticipated that only about 4,200 AFY of recycled water is technically and financially feasible by 2050. Table 4-5 shows the anticipated uses.

Table 4-5
Existing and Projected Recycled Water Beneficial Uses in Service Area
(DWR Table 6-4)

Supplier Producing (Treating) the Recycled Water:	Santa Rosa Regional Resources Authority and Eastern Municipal Water District
Supplier Operating the Recycled Water Distribution System:	Rancho California Water District
Supplemental Water Added in 2025 (volume) Include units	0
Source of 2025 Supplemental Water	NA

Beneficial Use Type	Potential Beneficial Uses of Recycled Water (Describe)	Potential Uses of Recycled Water (Quantity)	Level of Treatment	2025	2030	2035	2040	2045	2050
Agricultural irrigation	Irrigation of crops	172 AF	Tertiary	106	107	109	110	112	113
Landscape irrigation (excludes golf courses)	Irrigation of parks, medians, HOA common areas	2,638 AF	Tertiary	1,610	1,665	1,721	1,778	1,835	1,866
Golf course irrigation	Golf course irrigation	2400 AF	Tertiary	2,406	2,406	2,406	2,406	2,406	2,406
Commercial use	Cement plant	21 AF	Tertiary	0	0	0	0	0	0
Industrial use									
Geothermal/energy production									
Seawater intrusion barrier									
Recreational impoundment									
Wetlands or wildlife habitat									
Groundwater recharge (IPR)									
Surface water augmentation (IPR)									
Direct potable reuse									
Other	Construction	20 AF	Tertiary	59	59	59	59	59	59
			Total	4,181	4,237	4,295	4,353	4,412	4,472
Internal Reuse	SRWRF Use	500	Tertiary	24	50	50	50	50	50

Section 5: Water Service Reliability

5.1 Overview

The Act requires urban water suppliers to assess water supply reliability that compares total projected water use with the expected water supply over the planning period in five-year increments. The Act also requires an assessment for a single dry year and multiple dry years. This chapter presents the reliability assessment for the Rancho Water service area.

5.2 Normal Water Year

The normal/average year is a year in the historical sequence that most closely represents median runoff levels and patterns. This section summarizes Rancho Water supplies available to meet demands over the 25-year planning period during an average/normal year and compares them to demands for the same period. Assumptions about supplies and demands are provided in Chapters 2, 3, and 4. Table 5-1 demonstrates that with planned supplies (see Section 3.9) Rancho Water anticipates adequate supplies for years 2030 to 2050 under normal conditions.

Table 5-1
Comparison of Supplies and Demands in Average/Normal Year (AF)
(Modified from DWR Table 7-2)

Water Supply Source	2030	2035	2040	2045	2050
Imported Treated and Untreated Water [a]	56,650	58,250	60,300	62,400	64,650
Groundwater - Native	22,000	22,000	22,000	22,000	22,000
Recycled Water [b]	4,237	4,295	4,353	4,412	4,472
Groundwater Bank [c]	0	0	0	0	0
Total Supplies	***82,887***	***84,545***	***86,653***	***88,812***	***91,122***
Estimated Demands (Table 2-7)	***73,263***	***74,626***	***76,270***	***77,964***	***79,712***
Difference (Supply - Demand)	*9,625*	*9,919*	*10,384*	*10,848*	*11,410*
Difference as % of Demand	*13%*	*13%*	*14%*	*14%*	*14%*

a See Table 3-2. This table illustrates supplies RCWD anticipates being available. If not needed to meet demand RCWD will not purchase this volume of imported water.

b See Table 4-5. Based on demand that can be served in existing recycled water system.

c Drought or shortage year only supply.

5.3 Single-Dry Year

The water supplies and demands for the Rancho Water service area over the 25-year planning period were analyzed considering that a single-dry year would be similar to the droughts that occurred in California in 1977 or 2013. Table 5-2 summarizes the existing and planned supplies available to meet demands during a single-dry year. Rancho Water anticipates adequate supplies for years 2030 to 2050 under single-dry year conditions.

Table 5-2
Comparison of Supplies and Demands in Single-Dry Year (AF)
(Modified from DWR Table 7-3)

Water Supply Source	2030	2035	2040	2045	2050
Imported Treated and Untreated Water [a]	56,650	58,250	60,300	62,400	64,650
Groundwater - Native	22,000	22,000	22,000	22,000	22,000
Recycled Water [b]	4,237	4,295	4,353	4,412	4,472
Groundwater Bank [c]	4,000	4,000	4,000	4,000	4,000
Total Supplies	***86,887***	***88,545***	***90,653***	***92,812***	***95,122***
Estimated Demands (Table 2-8)	***76,463***	***77,891***	***79,614***	***81,390***	***83,223***
Difference (Supply - Demand)	*10,425*	*10,653*	*11,039*	*11,422*	*11,900*
Difference as % of Demand	*14%*	*14%*	*14%*	*14%*	*14%*

a See Table 3-2. This table illustrates supplies RCWD anticipates being available. If not needed to meet demand RCWD will not purchase this volume of imported water.
b See Table 4-4. Based on demand that can be served in existing recycled water system.
c Drought or shortage year only supply.

5.4 Multiple-Dry Year

The water supplies and demands for Rancho Water's service area over the 25-year planning period were analyzed considering that a five-year multiple-dry year event would be similar to the drought that occurred during the years 2012-2016. Table 5-3 summarizes the existing and planned supplies available to meet demands during multiple-dry years. Rancho Water anticipates adequate supplies for years 2030 to 2050 under multiple year drought conditions.

Table 5-3
Comparison of Supplies and Demands in Multiple-Dry Years (AF)
(DWR Table 7-4)

		2030	2035	2040	2045	2050
First year	Supply totals [a]	86,887	88,545	90,653	92,812	95,122
	Demand totals [b]	76,463	77,891	79,614	81,390	83,223
	Difference	10,425	10,653	11,039	11,422	11,900
Second year	Supply totals [a]	86,887	88,545	90,653	92,812	95,122
	Demand totals [b]	76,463	77,891	79,614	81,390	83,223
	Difference	10,425	10,653	11,039	11,422	11,900
Third year	Supply totals [a]	83,887	85,545	87,653	89,812	92,122
	Demand totals [b]	76,463	77,891	79,614	81,390	83,223
	Difference	7,425	7,653	8,039	8,422	8,900
Fourth year	Supply totals [a]	81,676	83,330	85,436	87,591	89,904
	Demand totals [b]	76,463	77,891	79,614	81,390	83,223
	Difference	5,213	5,439	5,822	6,201	6,682
Fifth year	Supply totals [a]	79,591	81,244	83,349	85,503	87,815
	Demand totals [b]	76,463	77,891	79,614	81,390	83,223
	Difference	3,128	3,353	3,735	4,113	4,592

Notes:
a See Table 3-9.
b See Table 2-8.

5.4.1 Summary of Comparisons

As shown in the analyses above, with planned supplies, Rancho Water has adequate supplies to meet demands during an average year, single-dry year, and multiple-dry years.

5.5 Drought Risk Assessment

The Water Code requires that every urban water supplier includes, in its UWMP, a drought risk assessment. This is to benefit and inform the demand management measures and water supply projects and programs to be included in the UWMP.

5.5.1 Data and Methodologies Used

5.5.1.1 Water Demands

The water demands for this UWMP utilize a water demand forecast developed in September 2025 based on extensive data on existing land use and water demands and projected land uses. The water demand estimates capture changes in demand due to water conservation, weather changes, and codes and standards that have occurred over time. More details on this methodology are found in Section 2.1.

Using the anticipated land uses and the water demand factors Rancho Water has estimated water demands for 2026 through 2030 shown in Table 5-4 below. Table 5-4 represents unconstrained demand (water demand absent any water supply restrictions).

5.5.1.2 Water Supplies

This Drought Risk Assessment looks at all the water supplies anticipated to be available 2026 through 2030, including any limitations due to infrastructure, regulations, and assuming drought conditions and climate change considerations.

Imported Water and Artificial Groundwater Recharge. Rancho Water anticipates being able to receive up to 56,650 AF imported water in all years up to 2030. Rancho Water does not anticipate any reduction in imported supplies.

Groundwater - Native. Rancho Water anticipates being able to pump native groundwater in a multiple-dry year 2026-2030, the following volumes:

16,000 AF in FY26
15,000 AF in FY27
14,000 AF in FY28
13,000 AF in FY29
12,000 AF in FY30

Recycled Water. Rancho Water anticipates being able to deliver, in a multiple year drought, the following volumes of recycled water:

4,192 AF in FY26
4,204 AF in FY27
4,215 AF in FY28
4,015 AF in FY29
3,941 AF in FY30

These recycled water volumes do not account for water used at the recycled water plants.

Groundwater Bank. The Groundwater Bank is in implementation and is expected to deliver water in year 2030.

5.5.2 Comparison of Total Water Supply Sources and Total Projected Water Use 2026 through 2030

Consistent with the Five-Year Drought Risk Assessment under California Water Code Section 10635(b) and reported in Table 5-4, the District evaluated projected supplies and demands for the period 2026-2030 and identified that with implementation of the groundwater bank, Rancho Water would have sufficient supplies even if a drought were to occur consecutive years 2026-2030.

Table 5-4
Summary Anticipated Supplies Consecutive Dry Years 2026-2030 (AF)
(Modified from DWR Table 7-5)

Supply	2026	2027	2028	2029	2030
Imported Treated and Untreated Water [a]	56,650	56,650	56,650	56,650	56,650
Groundwater - Native	16,000	15,000	14,000	13,000	12,000
Recycled Water	4,192	4,204	4,215	4,015	3,941
Groundwater Bank	0	0	0	0	4,000
Total Supplies	***76,842***	***75,854***	***74,865***	***73,665***	***76,591***

a This table illustrates supplies RCWD anticipates being available. If not needed to meet demand RCWD will not purchase this volume of imported water. Anticipates RCWD will be able to acquire additional imported water during dry years.

Table 5-5
Five Year Drought Risk Assessment 2026-2030 (AF)
(Modified from DWR Table 7-5)

	2026	2027	2028	2029	2030
Total Water Use [a]	64,946	67,186	69,502	71,899	76,463
Total Supplies	76,842	75,854	74,865	73,665	76,591
Surplus/Shortfall w/o WSCP Action	11,896	8,668	5,363	1,766	128
Planned WSCP Action					
WSCP - Supply Augmentation Benefit	NA	NA	NA	NA	NA
WSCP - Use Reduction Savings Benefit	NA	NA	NA	NA	NA
Revised Surplus/(Shortfall)	NA	NA	NA	NA	NA
Resulting % Use Reduction from WSCP Action	NA	NA	NA	NA	NA

a Excludes wheeled water. Assumes dry year demands.

Section 6: Demand Management Measures

The District recognizes water use efficiency as an integral component of current and future water supply strategy for its service area. Demand Management Measures (DMMs) refer to policies, programs, rules, regulations, and ordinances, and the use of devices, equipment, and facilities that, over the long-term, have been generally justified and accepted by the industry as providing a "reliable" reduction in water demand.

The purpose of the DMM section of this UWMP is to: (a) provide a description of the conservation programs that Rancho Water has implemented since 2021 to meet its urban water use reduction targets and (b) describe the activities and actions Rancho Water plans to use in the future to meet its urban water use reduction targets. For the purposes of this UWMP, the DMMs are categorized as "Foundational" and "Other". Foundational DMMs, listed below, are those DMMs that the UWMP Act and Water Code specifically mention:

a. Water waste prevention ordinances
b. Metering
c. Conservation pricing
d. Public education and outreach
e. Programs to assess and manage distribution system real loss
f. Water conservation program coordination and staffing support

Activities outside of the Foundational DMMs that encourage less water use fall in the "Other DMM" category.

6.1.1 Foundational DMMs

6.1.1.1 Water Waste Prohibition

The District Water Conservation Policy, which is effective at all times within Rancho Water's service area, is included as Appendix D of the District's Water Shortage Contingency Plan. Specifically, Section 2 of the policy states:

> "In order to comply with requirements of state legislation and Best Management Practices, it shall be a violation of this Policy at any time to make, cause, or permit the use of water for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner constituting waste. Customers shall abide by all requirements outlined in the applicable Shortage Stage of the WSC Plan [Water Shortage Contingency Plan] including, but not limited to the following requirements at all times:
>
> 1. Refrain from hosing off sidewalks, driveways, and other hardscapes.
>
> 2. Refrain from washing vehicles (autos, trucks, trailers, motorhomes, boats, or other vehicles) with hoses not equipped with a shut-off nozzle. Use a hose equipped with an

automatic shutoff valve or other device that causes it to cease dispensing water immediately when not in use.

3. Refrain from using non-recirculated water in a fountain or other decorative water feature.
4. Refrain from watering ornamental turf on public street medians.
5. Refrain from watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation.
6. Repair faucets, toilets, pipes and other potential sources of water leaks.
7. Irrigate landscape only between 6 p.m. and 9 a.m. This provision does not apply when:
    a. Manually watering during the establishment period of a new landscape;
    b. Supervised spot watering is done to address landscape issues;
    c. Temperatures are predicted to fall below freezing;
    d. Testing/repairing an irrigation system;
    e. Using drip and point-to-point irrigation systems; and
    f. A longer watering window is needed due to system constants.
8. When installing plumbing fixtures, use low-flow devices, except for those that require high-flow fixtures for health and/or sanitary reasons. Where possible, install pool and spa covers to minimize water loss due to evaporation during non-operating days.
9. When installing new landscaping, refer to the Water Use Classification of Landscape Species (WUCOLS). Plant low-water California Friendly® Landscapes. Non-functional turf areas are not recommended. Turf-lined channels are only permitted when justified by environmental regulations.

Rancho Water also maintains an online form where customers may report water waste. When the District receives a water waste complaint, the following customer outreach process is implemented, which may assess fines up to $500 per day.

1. For a first violation, the District may use a door hanger to alert the customer of the violation and shall issue a written notice of fact of such violation to the customer. The customer shall then be allowed a period of 10 days following issuance of the written notice to correct the violation described therein before a second violation will be issued.
2. For a second violation, the District shall issue a written notice of fact of such violation to the customer. The customer shall then be allowed a period of 10 days following issuance of the written notice to correct the violation described therein before a third violation will be issued.
3. For a third violation, the District shall issue a written notice of fact of such violation to the customer when a second violation has not been corrected within a period of 10 days

following issuance of the second violation notice. A fine in the amount of $50.00 shall be added to the customer's water bill upon issuance of a third violation. The customer shall be allowed a period of 5 days following issuance of the written notice to correct the third violation before a fourth violation will be issued.

4. For a fourth violation the District shall issue a written notice of fact of such violation to the customer when a third violation has not been corrected within a period of 5 days following issuance of the third violation notice. A fine in the amount of $100.00 shall be added to the customer's water bill upon issuance of a fourth violation. The customer shall be allowed 5 days following issuance of the written notice to correct the fourth violation before a fifth violation will be issued.

5. For a fifth violation the District shall issue a written notice of fact of such violation to the customer when a fourth violation has not been corrected within a period of 5 days following issuance of the fourth violation notice. A fine in the amount of $200.00 shall be added to the customer's water bill upon issuance of a fourth violation. The customer shall be allowed 5 days following issuance of the written notice to correct the fifth violation before a sixth violation will be issued.

6. For a sixth violation, the District shall issue a written notice of fact of such violation to the customer when the fifth violation has not been corrected within a period of 5 days following issuance of the fifth violation notice. A fine of $500.00 per day shall be added to the customer's water bill following the issuance of the sixth violation notice until the violation is corrected."

6.1.1.2 Metering

Rancho Water is fully metered with Automated Metering Infrastructure (AMI). As one of the first water agencies in California to fully implement AMI and to gain access to high-resolution water consumption data for all its customers, the District was quick to realize the value and potential of this technology.

AMI supports Rancho Water's Budget Based Tiered-Rate Structure (BBTR). This billing structure charges residential, multi-family, and dedicated landscape customers according to a customized water budget that is calculated based on their specific indoor and outdoor water needs. Water use that exceeds the budget is charged a higher and more costly tiered rate, the BBTR has proved to be Rancho Water's most effective demand management tool.

The District also has a web platform, which communicates to each customer their consumption data on a daily basis. The MyWaterTracker (MWT) platform now provides each Rancho Water customer with hourly consumption data in an easy-to-read graphical format and shows a comparison of customers' current water use to their customized household water budgets. Since its inception, MWT has helped thousands of the District's customers obtain a better understanding of their water use habits, make positive changes to their water use behaviors (i.e. conserve water), and save money by avoiding more costly billing tiers. The software also looks for anomalous usage and automatically notifies customers of leaks through text messages, emails, robo-calls, and written correspondence.

6.1.1.3 Conservation Pricing

Rancho Water established a Budget-Based Tiered Rate Structure in July 2010, which is designed to reduce water waste, promote efficient water use, and manage drought response in an equitable manner. The rate structure provides each of the District's single-family, multi-family, and landscape customers with a customized water budget that is calculated based on property-specific indoor and outdoor water needs. The outdoor component is based on variables such as real-time weather data (evapotranspiration) and a property's irrigated area. Water use that exceeds this budget is charged higher and more costly tiered rates. The rate structure consists of the following tiers:

- Tier 1 – Indoor Tier
  - Tier 1 is equal to 47 gallons per person per day over the billing period
- Tier 2 – Outdoor Efficient Tier
  - Tier 2 for the billing period is calculated using the following formula:

    ((SF x ETo x ETAF) / 1200 + Outdoor Variance) x Drought Factor

    where,

    SF = Irrigated area in square feet
    ETo = Sum of daily evapotranspiration in inches for billing period
    ETAF = ETo adjustment factor of 65%
    1200 = Factor for converting inches to billing units (hundred cubic feet)
    Outdoor variance = water allotted due to extenuating circumstances such as animals
    Drought Factor = percent of budget allocated during drought.
- Tier 3 – Outdoor Inefficient Tier
  - Tier 3 for the billing period is equal to 50% of Tier 1 plus Tier 2
- Tier 4 – Wasteful Tier
  - Tier 4 is charged for water use during the billing period in excess of Tier 3

The Budget Based Tiered Rate Structure is Rancho Water's most effective conservation effort. This is supported by the long term trend of reduced GPCD. Furthermore, this rate structure will be instrumental in the District's efforts to meet the CWUO.

6.1.1.4 Public Education and Outreach

Rancho Water seeks to foster meaningful relationships with its customers by listening and responding to their needs, and by keeping them well-informed. To accomplish this, the District implements an integrated community engagement plan that focuses on two-way, customer-centric communications. The following are examples of Rancho Water's public information and outreach efforts, which are designed to ensure that the local community is at the heart of the District's strategic communications efforts.

Current and Continuing Efforts

Rancho Water performed the following public and educational outreach activities in 2025 and intends to continue these efforts in future years.

- External Newsletter: sent quarterly; called the "Quarterly Tap."
- Newspaper Articles: press releases and media advisories sent to news media outlets.
- Email: e-blasts used for alerts, updates, and advertising.
- Water Bill Inserts: envelope "stuffers" sent monthly.
- Snipe Messaging: Graphics on water bill envelopes used to grab the attention of the community; promoting awareness of various District issues.
- Water Bill Messaging: "News For You" section includes important monthly updates; water-use consumption shown for a 12 month period for comparison; water budget parameters shown.
- Website: Rancho Water's webpage updated frequently; contains the most up-to-date information.
- MyWaterTracker: allows customers to view their usage in real-time.
- Social Media: posts used for notifications on construction projects, emergency water shutdowns, road closures, events, rebates, webinars, general District information.
- Zoom Webinars: for workshops, outreach for community meetings, and events.
- Information Booths at school events, city events, job fairs, local organized races, charity events, Earth Day, Autism Awareness event, Day of the Young Child event.
- Poster contest held every fall; open to all TK-5 grade students in service area; brings awareness to students on "water themes."

6.1.1.5 Programs to Assess and Manage Distribution System Real Loss

In accordance with California Water Code Section 10608.31, Rancho Water conducts an AWWA water loss audit each year and reports water loss to DWR annually. In addition, Rancho Water guards against water loss by maintaining and replacing meters and pipelines when necessary.

Rancho Water utilized the Water Audit Methodology (Appendix L of the Guidebook) to estimate both real and apparent water loss. The 12-month period used in the analysis was FY25 (July 2024 to June 2025). Rancho Water estimates that meter inaccuracies account for about 18 percent of the unaccounted water; real losses are estimated to be about 82 percent of losses or about 4.1 percent of production. The Water Loss Audit Report is provided in Appendix D.

Rancho Water's distribution system is fully equipped with a Supervisory Control and Data Acquisition (SCADA) system. Because this system enables District staff to monitor and remotely control field devices installed at its facilities, it plays an important part in the District's

management of system losses. One component of the SCADA system includes pressure transducers, which are installed at strategic locations throughout the distribution system. The transducers communicate real-time pressure data to workstations monitored by Rancho Water staff and sends alerts when certain pressure thresholds are exceeded, which could indicate system leakage.

6.1.1.6 Water Conservation Program Coordination and Staffing Support

Rancho Water currently employs four staff members who are responsible for the implementation of the District's conservation and water use efficiency program. These include an intern, a specialist, an analyst, and a manager. In addition to the core projects that are normally included in the District's annual budget, these employees implement additional efforts that are paid for using grant funds awarded through both state and Federal funding sources.

6.1.2 Other DMMs

6.1.2.1 Wholesale Agency Assistance Programs

Rancho Water will continue to work cooperatively with Western Water, EMWD, and MWD to participate in regional DMM programs. These conservation opportunities are described on Rancho Water's website (https://www.ranchowater.com/234/Rebates-Vouchers-Programs). Water conservation activities undertaken by MWD in the Rancho Water area are summarized in Table 6-1.

Table 6-1
Rancho Water Participation in Wholesale Agency Programs

Description	2021	2022	2023	2024	2025
Turf Removal (sf)	138,033	101,733	307,170	142,976	137,193
High Efficiency Toilets (1.1 gpf)	14	4	2	33	4
High Efficiency Washing Machine Rebates	130	100	93	61	100
Weather-Based Irrigation Controllers	265	138	101	94	140
High Efficiency Sprinkler Nozzles	1,351	110	197	125	216
Soil Moisture Sensors	0	0	0	0	0
Ultra and Zero Waste Urinals	0	4	0	0	0
Rain Barrel Vouchers	9	9	4	2	6
Connectionless Flood Steamers	0	0	0	0	0
Air-Cooled Ice Machines	0	0	0	0	0
Cooling Tower Conductivity Controllers	0	0	0	0	0
Cooling Tower pH Controllers	0	0	0	0	0
Dry Vacuum Pumps (medical)	0	0	0	0	0
Laminar Flow Restrictors (medical)	0	0	0	0	0
Plumbing Flow Control Valves	0	0	0	0	0
Cisterns	0	0	0	0	0

6.1.2.2 School Outreach

Since 2009, Rancho Water has provided environmental educational programming to Temecula Valley Unified School District and the Murrieta Valley Unified School District in the form of classroom presentations, assemblies, special event participation, special projects and equipment (i.e. recycle bins, composting bins, gardening supplies). Over 43,200 students have received education on water conservation, stormwater pollution prevention and waste reduction. Following is a list of specific activities:

- Information Booths: done at school events, city events, job fairs, local organized races, charity events, Earth Day, Autism Awareness event, Day of the Young Child Event
    - Rancho Water plans to have heavy community engagement by attending as many events as possible to stay current and relevant; Minimum of 6 events but goal is 12 per year
- Assembly Programs: in-classroom presentations
- Poster Contest: held every fall; open to all TK-5 grade students in our service area; brings awareness to students on a water theme
- Classroom Presentations: available to all students TK-12; topics vary by grade; all water-focused
    - Goal is 12 per year
    - Water Education Training Presentations and materials made available to local educators.

6.1.2.3 Water Use Evaluations

Rancho Water offers no-cost irrigation system evaluations for residential, commercial, and agricultural customers. Following evaluations Rancho Water will connect customers with available rebates and incentives.

6.2 Planned DMMs to Meet Water Use Targets

Rancho Water customers have already achieved demand reductions sufficient to meet water use objectives of *Making Water Conservation a California Way of Life*.

Section 7: Water Shortage Contingency Planning

Rancho Water has prepared a separate standalone Water Shortage Contingency Plan (WSCP), contained in Appendix G. The WSCP was adopted on [pending] at a regular Board of Directors meeting. This section includes a brief summary of the WSCP required by the UWMP guidelines.

7.1 Purpose of the WSCP

Rancho Water has developed a WSCP to provide guidance if triggering events occur — whether from reduced supply, increased demand, or an emergency declaration — and to identify corresponding actions to be taken during the various stages of a water shortage. The WSCP includes voluntary and mandatory stages, which are intended to be fair to all water customers and users while having the least impact on business, employment, and quality of life for residents.

7.2 Annual Assessment

Provisions in Water Code Section 10632.1 require that an urban water supplier such as Rancho Water, conduct an annual water supply and demand assessment ("Annual Assessment"), on or before July 1 of each year, to be submitted to DWR. As part of the WSCP, Rancho Water has identified the timeline, staff and outside agency coordination, and other actions necessary to conduct the Annual Assessment.

7.3 Shortage Stages

The WSCP describes water shortage stages corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage.

7.4 Water Shortage Response Actions

The WSCP identifies water shortage response actions, including:

- Water supply augmentation
- Public outreach
- Rebate programs
- Water audits
- Moratoriums on new connections
- Landscape irrigation restrictions
- Drought rate structures and volumetric penalties
- Monitoring of production and demand

Section 8: References

California Department of Public Health and University of California Davis. 2017. Climate change and Health Profile Report Riverside County.

California Irrigation Management System (CIMIS) data provided from Station No. 237 Temecula

California Regional Water Quality Control Board, Santa Ana Region. Order No. RS-2015-0006 NPDES NO. CA8000188 Waste Discharge Requirements for Eastern Municipal Water District Recycled Water System Temescal Creek Discharge Riverside County.

City of Murrieta. 2023. 2021-2029 Housing Element. January.

City of Temecula. 2022. 2021-2029 Housing Element. January.

County of Riverside. 2024. Housing Element 2021-2029. June.

MWD (Metropolitan Water District of Southern California). 2025. Annual Drinking Water Quality Report.

Rancho California Water District. 2024. 2024 Water and Sewer Cost of Service and Rate Update Report. June.

Santa Margarita River Watershed Watermaster. 2025. Annual Report Cooperative Water Resources Management Agreement. Calendar Year 2023. July.

SCAG (Southern California Association of Governments). 2020 Tier 2 Transportation Analysis Zones (TAZ) GIS Data. https://gisdata-scag.opendata.arcgis.com/datasets/aacd9bf03dfd4e778d969d1f193fd5a6_0

_____. 2019a. Profile of the City of Murrieta.

_____. 2019b. Profile of the City of Temecula.

US National Weather Service. ELSINORE Station January 1, 2000 to December 3, 2025.



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Appendix A through G

April 2026

Rancho California Water District

2025 Urban Water Management Plan

PUBLIC DRAFT

Prepared by

Kennedy Jenks

List of Appendices

A UWMP Checklist
B Standardized Tables
C Board of Directors Adoption of the 2025 UWMP [pending final UWMP]
D Water System Audit Output
E Data to Document Consistency with Delta Plan Policy WR P1
F Documents Related to Management of Temecula Valley Groundwater Basin
G Water Shortage Contingency Plan [Draft]
H Baseline and Target Calculations under SBx7-7

Appendix A: UWMP Checklist

Retail	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	N/A	Section 3.1, Pages 3-1.
x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	N/A	Section 1, including Section 1.11. Pages 1-1 to 1-15.
x	Section 2.1	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	N/A	Rancho California Water District complies with this provision.
x	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan preparation	2-1	Section 1.4 page 1-3
x	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	2-2	Section 1.4 page 1-4
x	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	2-3	Section 1.4 page 1-4
x	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan preparation	N/A	Section 1.5 page 1-4
x	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	N/A	Section 1.5 pages 1-4 to 1-5
x	Section 2.4.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	N/A	[pending]

n/a	Section 2.4.1	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A	Not applicable.
x	Chapter 3.0	10631(a)	Describe the water supplier service area.	System Description	N/A	Sections 1.6 to 1.11; pages 1-6 to 1-18.
x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	N/A	Section 1.10; pages 1-17 to 1-19.
x	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System Description	3-1	Section 1.8; pages 1-15 to 1-16
x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	N/A	Section 1.9; page 1-17.
x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description and Baseline	N/A	Section 1.7, page1-13; Table 1-4.
x	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	4-1 and 4-2	Chapter 2; pages 2-1 to 2-12; Tables 2-1 to 2-9.
x	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System Water Use	4-5	Section 2.2.11; pages 2-6 to 2-7; Table 2-3.
x	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System Water Use	4-6	Section 2.2.11; pages 2-6 to 2-7; Table 2-4.
x	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	4-3	Section 2.6; page 2-11 to 2-12; Table 2-9.
x	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System Water Use	4-3	Section 2.5; pages 2-8 to 2.11.
x	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	4-3	Section 2.5; pages 2-8 to 2.11.
x	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall… Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System Water Use	4-3	Section 2.1 page 2-1; Section 2.5 page 2-8 to 2-11.

x	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	N/A	Section 5.5.1 pages 5-3 to 5-5
N/A	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	N/A	Not Applicable
x	Section 5.2	10608.4	Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: - Was considered an urban retail water supplier in 2020, - Met its 2020 target in 2020, or - Was part of a merger or consolidation since 2020.	Baselines and Targets	5-1	Section 2.5 page 2-8
x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	N/A	Chapter 3; pages 3-1 to 3-19; Tables 3-1 to 3-5.
x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System Supplies	N/A	Chapter 3; pages 3-1 to 3-19; Tables 3-7 to 3-10.
x	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water Suplies and recycled water	6-1	Section 3.3; pages 3-5 to 3-10; Appendix F
x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	N/A	Section 3.3; pages 3-5 to 3-10; Appendix F
x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	N/A	Section 3.3; pages 3-5 to 3-10; Appendix F.

x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	N/A	Section 3.3; pages 3-5 to 3-10; Appendix F.
x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water Supplies and recycled water	N/A	Not applicable.
x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water Supplies and recycled water	N/A	Not applicable.
x	Section 6.2.3	10631(b)(4)(B)	If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System Supplies	6-1	Section 3.3.1 pages 3-1 to 3-9, Table 3-4.
x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	6-9	Section 3.3; pages 3-5 to 3-10; Section 3.10 pages Tables 3-7 to 3-9
			Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System Supplies	6-8 and 6-9	Section 3.10 pages Tables 3-7 to 3-9
x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	N/A	Section 3.8; pages 3-12 to 3-13
			Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (recycled water)	6-2	Section 4.;pages 4-1 to 4-4; Table 4-1
x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	6-3	Section 4.;pages 4-1 to 4-4; Table 4-2
x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	6-4	Section 4.3 pages 4-6 to 4-7; Table 4-4.

x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	6-4	Section 4.4; pages 4-7 to 4-9; Table 4-4.
x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	6-4 and 6-5	Section 4.4; pages 4-7 to 4-9; Tables 4-4 and 4-5.
x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	6-6	Section 4.4; pages 4-7 to 4-9; Tables 4-4 and 4-5.
x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	N/A	Section 4.4; pages 4-7 to 4-9; Table 4-4.
x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	6-7	Section 3.6; page 3-16.
x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	6-7	Section 3.9 ; pages 3-13 to 3-14; Table 3-6.
x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	O-1A, O-1B, O-1C, and O-2	Section 3.11; page 3-16 to 3-17; Table 3-10.
x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	N/A	Sections 3.2.2 and 3.3.2 ; pages 3-3 to 3-9. Section
x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	7-2, 7-3, 7-4	Section 5, pages 5-1 to 5-3
x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	N/A	Section 3.2.1 page 3-3 and Appendix E

x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	N/A	Section 5.5; pages 5-3 to 5; Tables 5-4 and 5-5.
x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	N/A	Section 5.5; pages 5-3 to 5; Tables 5-4 and 5-5.
x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	N/A	Sections 3.1 to 3.4; pages 3-1 to 3-12; Tables 3-1 to 3-5.
x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	7-5	Section 5.5; pages 5-3 to 5; Tables 5-4 and 5-5.
x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	N/A	Sections 3.1 to 3.4; pages 3-1 to 3-12; Tables 3-1 to 3-5.
x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	N/A	Section 8 and Appendix H
x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	N/A	Appendix H
x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	N/A	Appendix H
x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	N/A	Appendix H
x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	N/A	Appendix H

x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	N/A	Appendix H
x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	8-1	Appendix H
x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	8-2	Appendix H
x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	8-3	Appendix H
x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	8-2	Appendix H
x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	8-3	Appendix H
x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	8-2 and 8-3	Appendix H
x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	N/A	Appendix H
x	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water shortage contingency planning	N/A	Appendix H
x	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water shortage contingency planning	N/A	Appendix H
x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	N/A	Appendix H
x	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. *Water Shortage Emergencies* .	Water shortage contingency planning	N/A	Appendix H

x	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water shortage contingency planning	N/A	Appendix H
x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions	Water shortage contingency planning	N/A	Appendix H
x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	N/A	Appendix H
x	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, *Excessive Residential Water Use During Drought* .	Water shortage contingency planning	N/A	Appendix H
x	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water shortage contingency planning	N/A	Appendix H
x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water shortage contingency planning	N/A	Appendix H
x	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water shortage contingency planning	N/A	Appendix H
x	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	N/A	Appendix H
x	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand management measures	N/A	Section 6.0; pages 6-1 to 6-7.
	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand management measures	N/A	Not Applicable
x	Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	N/A	[pending public hearing]

x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	10-1	Section 1.5.1; page 1-6; Appendix C.
x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2025 plan to the department by July 1, 2026.	Plan Adoption, Submittal, and Implementation	N/A	[pending]
x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	N/A	[pending]
x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	10-1	Section 1.5; page 1-4 to 1-6; Table 1-3. Also Appendices C and J.
x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	N/A	Appendix C
x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	N/A	Section 1.5; page 1-4 to 1-6; Table 1-3. Also Appendix C
x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	N/A	Section 1.5; page 1-4 to 1-6; Table 1-3. Also Appendix C
x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	N/A	Section 1.5; page 1-4 to 1-6; Table 1-3. Also Appendix C
x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	N/A	Section 1.5; page 1-4 to 1-6; Table 1-3. Also Appendix C
x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	N/A	Section 1.5; page 1-4 to 1-6; Table 1-3. Also Appendix C
x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	N/A	Not Applicable

Appendix B: Standardized Tables-

Submittal Table 2-1 Retail: Public Water Systems			
Has there been a change in the number of affiliated Public Water Systems since the 2020 UWMP? (OPTIONAL)			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
Add additional rows as needed			
C3310038	Rancho California Water District	45,743	59,791
	Total	45,743	59,791
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Table 2-3.			
NOTES:			

Submittal Table 2-2: Plan Identification			
Select One or Both	**Type of Plan**		**Name of Regional Alliance or RUWMP** (Drop Down List)
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a SB X7-7 Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesale supplier
☑	Supplier is a retail supplier
Fiscal or Calendar Year (select one)	
☐	UWMP Tables are in calendar years
☑	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
7/24	
Units of measure used in UWMP (Select from the drop down list).	
Unit	AF
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	
NOTES:	

Submittal Table 2-4 Retail: Water Supplier Information Exchange Water Code Section 10631(h)
The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631 (h).
Wholesale Water Supplier Name
Add additional rows as needed
Eastern Municipal Water District
Western Municipal Water District of Reiverside County
NOTES:

Submittal Table 3-1 Retail: Population - Current and Projected Water Code Section 10631(a)						
Population Served	2025	2030	2035	2040	2045	2050(opt)
	157,451	163,731	167,344	172,914	178,670	185,290
NOTES:						

Submittal Table 4-1 Retail: 2025 Actual Total Uses for Potable and Non-Potable Water Water Code Section 10631(d)(1)			
Use Type	Additional Description (as needed)	2025 Actual Water Use	
Drop down list May select each use multiple times These are the only use types that will be recognized by the WUEdata online submittal tool		Level of Treatment When Delivered (OPTIONAL)	Volume (AF)
Add additional rows as needed			
Single Family		Potable	21,361
Single Family	Ag/Residential	Potable	6,015
Multi-Family		Potable	2,214
Commercial	Commercial/Industrial/ Institutional	Potable	3,043
Landscape	Landscape using potable water	Potable	4,238
Agricultural		Potable	10,465
Other (optional)	Construction Meters/Fire Flows	Potable	1,153
Other (optional)	Santa Margarita Discharge untreated	Potable	4,103
Distribution System Water Loss		Potable	2,995
Landscape	Landscape using reclaimed water	Non-Potable	4,205
		Subtotal Potable	55587
		Subtotal Non-Potable	4205
		Total	59,792
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table			
NOTES: Does Not include 6,190 AF put into long-term storage.			

Submittal Table 4-2 Retail: Total Uses of Potable, and Non-Potable Water - Projected
Water Code Section 10631(d)(1)

Use Type	Additional Description (as needed)	Projected Water Use (Report To the Extent that Records are Available)					
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		Level of Treatment When Delivered (OPTIONAL) Drop down list	**2030** (AF)	**2035** (AF)	**2040** (AF)	**2045** (AF)	**2050** (opt) (AF)
Add additional rows as needed.							
Single Family		Potable	29,615	30,024	31,096	32,203	33,345
Single Family	Ag Residential	Potable	3,050	3,050	3,050	3,050	3,050
Multi-Family		Potable	3,302	3,348	3,425	3,504	3,587
Commercial	Commercial/Industrial/Institutional	Potable	8,724	9,154	9,154	9,154	9,154
Landscape	Landscape using potable water	Potable	3,110	3,190	3,190	3,190	3,190
Agricultural		Potable	12,573	12,839	13,185	13,542	13,910
Other (optional)	Construction Meters/Fire Flows	Potable	972	972	972	972	972
Other (optional)	Santa Margarita Discharge	Potable	4,000	4,000	4,000	4,000	4,000
Distribution System Water Loss		Potable	3,681	3,755	3,844	3,937	4,032
Landscape	Landscape using recycled water	Non-Potable	4,237	4,295	4,353	4,412	4,472
		Subtotal Potable	69,025	70,331	71,916	73,552	75,240
		Subtotal Non-Potable	4,237	4,295	4,353	4,412	4,472
		Total	73,263	74,626	76,270	77,964	79,712

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

Submittal Table 4-3 Retail: Inclusion in Water Use Projections Water Code Section 10631 (a), 10631 (d)(4)(A), and 10631 (d)(4)(B)	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) **Drop down list (y/n)**	No
If "Yes" to above: State the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found. **OPTIONAL** Suppliers may complete Optional Submittal Table 4-4 R to quantify the expected savings.	
Are Lower Income Residential Demands Included In Projections? (Refer to Appendix K of UWMP Guidebook) **Drop down list (y/n)**	Yes
OPTIONAL If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found. (An example is included in Appendix K.)	
NOTES:	

Submittal Table 4-5 Retail: Water Loss Audit Reporting Water Code Section 10631(d)(3)(A)		
Public Water System ID # Reported in Table 2-1 R	Reporting Period	Submitted to DWR Water Loss Audit Program (yes/no)
Report submittal status for all five years for each Public Water System as available. Add rows as needed		
	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
DWR NOTES: Suppliers will provide a link to the WUEdata submittals of their Water Loss Audit Reports.		
NOTES:		

Submittal Table 4-6 Retail: Progress Towards 2028 Water Loss Standard
Water Code Section 10631(d)(3)(C)

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (y/n) If no, Supplier will not complete this row.	Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water			State Water Board Standard		Recent AWWA Water Loss A		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)	Real Water Loss Per Unit per Day	2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (AF)	Apparent Water Loss Per Unit per Day
Add additional rows as needed.											
CA3310038	Yes	48.6	Gallons per Service Connection per Day (GPSCD)	45743	2069.707	49.4	10.2	Gallons per Service Connection per Day (GPSCD)	45743	476.594	9.5

Water Board's Calculated Water Loss Standards

DWR NOTES: Units of measure (AF, CCF, MG) for Water Loss **MUST** remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's

NOTES:

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress
Water Code Section 10608.40

☐	**Check the box if the Supplier was not an Urban Water Supplier during or before the 2020 UWMP reporting cycle. Proceed to the next table.**

Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target? Drop down list	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	**Only for suppliers that did not meet the Target in 2020 See DWR NOTES below.**	
					Actual 2025 GPCD (From SB X7-7 Compliance Form)	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	307	201	Yes		NA

DWR NOTES:
Suppliers calculating a 2025 GPCD will need to complete and submit SB X 7-7 Compliance Tables to verify the use of SB X7-7 Methodologies.
Suppliers that were part of a merger or consolidation since 2020 see Chapter 5 and Appendix P for guidance.

NOTES:

Submittal Table 4-2 Retail: Total Uses of Potable, and Non-Potable Water - Projected
Water Code Section 10631(d)(1)

Use Type	Additional Description (as needed)	Projected Water Use (Report To the Extent that Records are Available)					
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		Level of Treatment When Delivered (OPTIONAL) Drop down list	**2030** (AF)	**2035** (AF)	**2040** (AF)	**2045** (AF)	**2050** (opt) (AF)
Add additional rows as needed.							
Single Family		Potable	29,615	30,024	31,096	32,203	33,345
Single Family	Ag Residential	Potable	3,050	3,050	3,050	3,050	3,050
Multi-Family		Potable	3,302	3,348	3,425	3,504	3,587
Commercial	Commercial/Industrial/Institutional	Potable	8,724	9,154	9,154	9,154	9,154
Landscape	Landscape using potable water	Potable	3,110	3,190	3,190	3,190	3,190
Agricultural		Potable	12,573	12,839	13,185	13,542	13,910
Other (optional)	Construction Meters/Fire Flows	Potable	972	972	972	972	972
Other (optional)	Santa Margarita Discharge	Potable	4,000	4,000	4,000	4,000	4,000
Distribution System Water Loss		Potable	3,681	3,755	3,844	3,937	4,032
Landscape	Landscape using recycled water	Non-Potable	4,237	4,295	4,353	4,412	4,472
		Subtotal Potable	69,025	70,331	71,916	73,552	75,240
		Subtotal Non-Potable	4,237	4,295	4,353	4,412	4,472
		Total	73,263	74,626	76,270	77,964	79,712

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

NOTES:

Submittal Table 4-3 Retail: Inclusion in Water Use Projections Water Code Section 10631 (a), 10631 (d)(4)(A), and 10631 (d)(4)(B)	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) **Drop down list (y/n)**	No
If "Yes" to above: State the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found. **OPTIONAL** Suppliers may complete Optional Submittal Table 4-4 R to quantify the expected savings.	
Are Lower Income Residential Demands Included In Projections? (Refer to Appendix K of UWMP Guidebook) **Drop down list (y/n)**	Yes
OPTIONAL If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found. (An example is included in Appendix K.)	
NOTES:	

Submittal Table 4-5 Retail: Water Loss Audit Reporting Water Code Section 10631(d)(3)(A)		
Public Water System ID # Reported in Table 2-1 R	Reporting Period	Submitted to DWR Water Loss Audit Program (yes/no)
Report submittal status for all five years for each Public Water System as available. Add rows as needed		
	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
DWR NOTES: Suppliers will provide a link to the WUEdata submittals of their Water Loss Audit Reports.		
NOTES:		

Submittal Table 4-6 Retail: Progress Towards 2028 Water Loss Standard
Water Code Section 10631(d)(3)(C)

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (y/n) If no, Supplier will not complete this row.	Real Water Loss: State Water Board Standard		Real Water Loss: Most Recent AWWA Water		Real Water Loss Per Unit per Day	Apparent Water Loss: State Water Board Standard		Apparent Water Loss: Recent AWWA Water Loss A		Apparent Water Loss Per Unit per Day
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)		2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (AF)	
Add additional rows as needed.											
CA3310038	Yes	48.6	Gallons per Service Connection per Day (GPSCD)	45743	2069.707	49.4	10.2	Gallons per Service Connection per Day (GPSCD)	45743	476.594	9.5

Water Board's Calculated Water Loss Standards

DWR NOTES: Units of measure (AF, CCF, MG) for Water Loss **MUST** remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's

NOTES:

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress
Water Code Section 10608.40

☐	**Check the box if the Supplier was not an Urban Water Supplier during or before the 2020 UWMP reporting cycle. Proceed to the next table.**

Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target? Drop down list	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	**Only for suppliers that did not meet the Target in 2020 See DWR NOTES below.**	
					Actual 2025 GPCD (From SB X7-7 Compliance Form)	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	307	201	Yes		NA

DWR NOTES:
Suppliers calculating a 2025 GPCD will need to complete and submit SB X 7-7 Compliance Tables to verify the use of SB X7-7 Methodologies.
Suppliers that were part of a merger or consolidation since 2020 see Chapter 5 and Appendix P for guidance.

NOTES:

Submittal Table 6-1 Retail: Groundwater Volume Pumped
Water Code Section 10631(4) and 10631(4)(c)

☐	Check the box if the Supplier does not pump groundwater. Proceed to the next table.
☐	Check the box if all or part of the groundwater described below is desalinated. (OPTIONAL)

Groundwater Type **Drop Down List** May use each category multiple times	Water Type (OPTIONAL) **Drop down list**	Location or Basin Name	2021 (AF)	2022 (AF)	2023 (AF)	2024 (AF)	2025 (AF)
Add additional rows as needed							
Alluvial Basin	Potable	Temecula Valley	31588	31912	30910	30121	31251
		Total	31,588	31,912	30,910	30,121	31,251

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

NOTES

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2025
Water Code Section 10633(a)

☐	Check the box if there is no wastewater collection system. Proceed to the next table.
	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)
	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)

Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? OPTIONAL **Drop Down List**	Volume of Wastewater Collected from UWMP Service Area (AF)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number **Drop down list**	Is WWTP Located Within UWMP Area? **Drop Down List**
Add additional rows as needed				
Rancho California Water District	Metered	1,385	Santa Rosa WRF-Recycled WTR, Place ID 255735	Yes
Eastern Municipal Water District	Estimated	9,054	Temecula Valley RWRF, Place ID 263145	Yes
Total Wastewater Received from UWMP Service Area in 2025:		10,439		

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Additional Guidance. See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:

Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWMP Service Area in 2025
Water Code Section 10633(a)

☐ **Check the box if no wastewater is treated or disposed of within the UWMP service area.** Proceed to the next table.

Wastewater Treatment Plant Name and Place ID Number **Drop down list**	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? (OPTIONAL) **Drop down list**	2025 Volume of Wastewater Received from UWMP Service Area (As Reported in Submittal Table 6-2 R)	Total 2025 Volume of Water Treated	2025 Outcomes of Treated Wastewater											
				Water Recycled Within UWMP Service Area (enter data as applicable)		**Water Recycled Outside of UWMP Service Area** (enter data as applicable)		**Effluent Discharge that is not a Permitted Recycled Water Use** (enter data as applicable)		**Required Discharge for Instream Flow** (enter data as applicable)		**Delivered to Another Entity for Additional Treatment** (enter data as applicable)		
				Treatment Level **Drop down list**	Volume	Treatment Level **Drop down list**	Volume	Treatment Level **Drop down list**	Volume	Treatment Level **Drop down list**	Volume	Treatment Level **Drop down list**	Volume	Name of other entity
		(AF)	(AF)		(AF)		(AF)		(AF)		(AF)		(AF)	
Add additional rows as needed														
Santa Rosa WRF-Recycled WTR, Place	Yes	3671	AF	Tertiary	3,221	Tertiary	322	Tertiary	0					
Temecula Valley RWRF, Place ID 263145	Yes	16644	AF	Tertiary	1,174	Tertiary	15,257	Tertiary	0					
Total		20,315	-		4,395		15,579		0		0		0	

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
IPR: Indirect Potable Reuse would have the treatment level of its end use requrement in the Level of Treatment drop-down.
Additional Guidance. See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area
Water Code Section 10633 (c)(e)

☐ Check box if recycled water is not used and is not planned for use within the service area of the supplier. The supplier will only complete the column on "Potential Recycled Water Use" and submit an accompanying narrative on the feasibility of that potential recycled water use.

Name(s) of Facility/ies Producing (Treating) the Recycled Water (OPTIONAL) :	
Name of Supplier Operating the Recycled Water Distribution System (OPTIONAL) :	
Supplemental Water Added in 2025 (volume) Include units (OPTIONAL) :	
Source of 2025 Supplemental Water (OPTIONAL) :	

Use Type **Drop down list**	Water Type (after treatment if treated) (OPTIONAL) **Drop down list**	Additional Information (as needed)	2025	2030	2035	2040	2045	2050 (opt)	Potential Recycled Water Use	
			(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	Volume	Narrative page number (OPTIONAL)
Add additional rows as needed										
Agricultural irrigation			106	107	109	110	110	112	113	
Landscape irrigation (exc golf courses)			1610	1,665	1,694	1,721	1,778	1,835	1894	
Golf course irrigation			2406	2406	2406	2406	2406	2406	2406	
Commercial use			0	0	0	0	0	0	0	
Other (Description Required)		Construction	59	59	59	59	59	59	59	
Other (Description Required)		Internal to Plant	24	50	50	50	50	50	50	
		Total	4205	4287	4318	4346	4403	4462	4522	0

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Additional Guidance. See Appendix M, Section M.21 for detailed guidance on this table.
Potential recycled water use - a description of the feasibility of these uses must be included in the narrative.
Multiple Producers: If you have multiple recycled water producers, submit a separate table for each.

NOTES:

Submittal Table 6-5 Retail: 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual
Water Code Section 10633 (e)

☐	Check the box if recycled water was not used in 2025 nor previously projected for use in 2020. Proceed to the next table.

Use Type Drop Down list	2020 Projection for 2025 (AF)	2025 Actual Use (AF)
Add additional rows as needed		
Agricultural irrigation	109	106
Landscape irrigation (exc golf courses)	1,939	1,610
Golf course irrigation	2,108	2,406
Commercial use	4	0
Industrial use	100	24
Other (Description Required)	15	59
Total	4,275	4,205

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3
Additional Guidance. See Appendix M, Section M.21 for detailed guidance on this table.

NOTES: The Other use is for construction meters.

Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use
Water Code Section 10633 (f)

☑	Check the box if the Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.
	Provide page location of narrative in the UWMP

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Add additional rows as needed			
		Total (AF)	0
		Unit Conversion to AF	0

DWR NOTES:

Units of measure (AF, CCF, MG) MUST remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's calculations.

The unit conversion to Acre Feet addresses the Water Code's requirement that this value be provided in acre-feet.

NOTES:

Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use
Water Code Section 10633 (f)

☑	Check the box if the Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.
	Provide page location of narrative in the UWMP

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Add additional rows as needed			
		Total (AF)	0
		Unit Conversion to AF	0

DWR NOTES:

Units of measure (AF, CCF, MG) MUST remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's calculations.

The unit conversion to Acre Feet addresses the Water Code's requirement that this value be provided in acre-feet.

NOTES:

Submittal Table 6-8 Retail: Water Supplies — 2025 Actual
Water Code Section 10631 (b)

Water Supply	Additional Description (as needed)	2025		
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		**Water Type** (after treatment if treated) (OPTIONAL) **Drop Down list**	**Actual Volume**	**Total Entitlement** (OPTIONAL) See "DWR Notes" below
			(AF)	(AF)
Add additional rules as needed				
Purchased or Imported Water	Treated water delivered to RCWD service area	Potable	20,080	
Purchased or Imported Water	Untreated for groundwater recharge and recovery	Potable	15,573	
Purchased or Imported Water	Untreated for groundwater recharge and storage	Potable	6,190	
Purchased or Imported Water	Untreated imported water for release as makeup water to Santa Margarita River	Potable	4,103	
Groundwater (not desalinated)	Native groundwater	Potable	15,831	
Groundwater (not desalinated)	Artificially recharged groundwater. No volume listed because this is already accounted for in "Purchased or Imported Water - Untreated for groundwater recharge"	Non-Potable		
Surface water (not desalinated)	Used for groundwater recharge. No volume listed because this is already accounted for in "Groundwater (not	Non-Potable		
Recycled Water		Non-Potable	4,205	
		Subtotal Potable	61,777	0
		Subtotal Non-Potable	4,205	0
		Total	65,982	0

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES:

Submittal Table 6-9 Retail: Water Supplies — Projected
Water Code Section 10631 (b)

Water Supply			Projected Water Supply (Report to the Extent Practicable)									
			2030		2035		2040		2045		2050 (opt)	
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	**Water Type** (after treatment if treated) (OPTIONAL) **Drop Down list**	Reasonably Available Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below	Reasonably Available Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below	Reasonably Available Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below	Reasonably Available Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below	Reasonably Available Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below
			(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)
Add additional rows as needed												
Purchased or Imported Water	Treated and Untreated		56,650		58,250		60,300		62,400		64,650	
Groundwater (not desalinated)	Native		22,000		22,000		22,000		22,000		22,000	
Supply from Storage			0		0		0		0		0	
Recycled Water			4,237		4,295		4,353		4,412		4,472	
		Subtotal Potable	0	0	0	0	0	0	0	0	0	0
		Subtotal Non-Potable	0	0	0	0	0	0	0	0	0	0
		Total	82,887	0	84,545	0	86,653	0	88,812	0	91,122	0

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.
Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES:

Submittal Table 7-2 Retail: Normal Year Supply and Use Comparison Water Code Section 10635 (a)					
	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (Opt) (AF)
Supply totals (autofill from Submittal Table 6-9 R)	82,887	84,545	86,653	88,812	91,122
Use totals (autofill from Submittal Table 4-2 R)	73,263	74,626	76,270	77,964	79,712
Surplus/(shortfall)	9,624	9,919	10,383	10,848	11,410
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

Submittal Table 7-3 Retail: Single Dry Year Supply and Use Comparison Water Code Section 10635(a)					
	2030	2035	2040	2045	2050 (Opt)
	(AF)	(AF)	(AF)	(AF)	(AF)
Supply totals	***86,887***	***88,545***	***90,653***	***92,812***	***95,122***
Use totals	76,463	77,891	79,614	81,390	83,223
Surplus/(shortfall)	10,425	10,653	11,039	11,422	11,900
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES					

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Use Comparison
Water Code Section 10635(a)

		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (Opt) (AF)
First year	Supply totals	86,887	88,545	90,653	92,812	95,122
	Use totals	76,463	77,891	79,614	81,390	83,223
	Surplus/(shortfall)	10,425	10,653	11,039	11,422	11,900
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Second year	Supply totals	86,887	88,545	90,653	92,812	95,122
	Use totals	76,463	77,891	79,614	81,390	83,223
	Surplus/(shortfall)	10,425	10,653	11,039	11,422	11,900
	OPTIONAL WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Third year	Supply totals	83,887	85,545	87,653	89,812	92,122
	Use totals	76,463	77,891	79,614	81,390	83,223
	Surplus/(shortfall)	7,425	7,653	8,039	8,422	8,900
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fourth year	Supply totals	81,676	83,330	85,436	87,591	89,904
	Use totals	76,463	77,891	79,614	81,390	83,223
	Surplus/(shortfall)	5,213	5,439	5,822	6,201	6,682
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fifth year	Supply totals	79,591	81,244	83,349	85,503	87,815
	Use totals	76,463	77,891	79,614	81,390	83,223
	Surplus/(shortfall)	3,128	3,353	3,735	4,113	4,592
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

NOTES:

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)		
2026		**Total**
Total Water Use	(AF)	64,857
Total Supplies	(AF)	76,842
Surplus/Shortfall w/o WSCP Action		11,985
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2027		**Total**
Total Water Use	(AF)	67,094
Total Supplies	(AF)	75,854
Surplus/Shortfall w/o WSCP Action		8,760
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2028		**Total**
Total Water Use	(AF)	69,407
Total Supplies	(AF)	74,865
Surplus/Shortfall w/o WSCP Action		5,458
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2029		**Total**
Total Water Use	(AF)	71,800
Total Supplies	(AF)	73,665
Surplus/Shortfall w/o WSCP Action		1,865
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2030		**Total**
Total Water Use	(AF)	76,487
Total Supplies	(AF)	76,591
Surplus/Shortfall w/o WSCP Action		104
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.		
NOTES:		

Submittal Table 8-1: Cross-reference for Standard vs Supplier Shortage Levels Water Code Section 10632(a)(3)(B)			
☐	Check the box if the Supplier uses the Standard six levels of water shortage. Proceed to the next table.		
Standard Shortage Levels	**Percent Shortage Range**	**Suppliers Shortage Levels**	**Percent Shortage Range**
1	Up to 10%	3b	0-10
2	Up to 20%	4a, 4b	11 -20
3	Up to 30%	4c	21-30
4	Up to 40%	5a, 5b	31 to 40
5	Up to 50%	5c	41 to 50
6	>50%	6	greater than 50
NOTES:			

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
Add additional rows as needed					
1	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
1	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
1	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
1	Provide Rebates for Turf Replacement	Percentage	1,063	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 20% uptake at this stage of water shortage	No
1	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50%	No
1	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	No
1	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		No
2	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
2	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
2	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
2	Provide Rebates for Turf Replacement	Percentage	1,063	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 20% uptake at this stage of water shortage	No
2	Provide Rebates for Landscape Irrigation Efficiency	Percentage	532	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 10% at this stage	No
2	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	No
2	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
2	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		No
3a	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No

3a	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
3a	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
3a	Provide Rebates for Turf Replacement	Percentage	1,063	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 20% uptake at this stage of water shortage	No
3a	Provide Rebates for Landscape Irrigation Efficiency	Percentage	532	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 10% uptake at this stage	No
3a	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	No
3a	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
3a	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		No
3b	Implement or Modify Drought Rate Structure or Surcharge	Percentage	1,063	Suspend rolling budgets; no variances for filling swimming pools; residential and landscape Tier 3 budgets decreased up to 50%. Agricultural, CII and agricultural/residential Tier 2 are decreased by up to 50%. Assumes 100 % compliance	Yes
3b	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
3b	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
3b	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
3b	Provide Rebates for Turf Replacement	Percentage	1,595	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 30% uptake at this stage of water shortage	No
3b	Provide Rebates for Landscape Irrigation Efficiency	Percentage	532	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 10%	No
3b	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	Yes
3b	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
3b	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
3b	Other - Require automatic shut of hoses	Percentage	0		Yes
3b	CII - Restaurants may only serve water upon request	Percentage	0		Yes
3b	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
3c	Implement or Modify Drought Rate Structure or Surcharge	Percentage	2,658	Residential and landscape Tier 3 budgets decreased up to 100%. Agricultural, CII and agricultural/residential Tier 2 are decreased by up to 100%. Assumes 100% compliance	Yes
3c	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
3c	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
3c	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No

3c	Provide Rebates for Turf Replacement	Percentage	1,595	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 30% uptake at this stage of water shortage	No
3c	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No
3c	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	Yes
3c	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
3c	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
3c	Other - Require automatic shut of hoses	Percentage	0		Yes
3c	CII - Restaurants may only serve water upon request	Percentage	0		Yes
3c	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
4a	Implement or Modify Drought Rate Structure or Surcharge	Percentage	11,165	Residential Tier 2 budgets are decreased by up to 49%; Landscape budgets are completely eliminated and CIII, agricultural and agricultural/residential Tier 1 budgets are decreased by up to 10%. Assumes 100% compliance	Yes
4a	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
4a	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
4a	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
4a	Provide Rebates for Turf Replacement	Percentage	1,595	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 30% uptake at this stage of water shortage	No
4a	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No
4a	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	Yes
4a	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
4a	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
4a	Other - Require automatic shut of hoses	Percentage	0		Yes
4a	CII - Restaurants may only serve water upon request	Percentage	0		Yes
4a	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
4a	Other - Prohibit use of potable water for construction and dust control	Percentage	0	No new POTABLE hydrant construction or tempor	Yes
4a	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety, unless water demand is offset to a net zero increase.	Yes
4a	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
4b, 4c	Implement or Modify Drought Rate Structure or Surcharge	Percentage	16,482	Residential Tier 2 budgets are decreased by up to 100%; Landscape budgets are completely eliminated and CIII, agricultural and agricultural/residential Tier 1 budgets are decreased by up to 45%. Assumes only 60% compliance at this stage	Yes

4b, 4c	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
4b, 4c	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
4b, 4c	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 50% uptake	No
4b, 4c	Provide Rebates for Turf Replacement	Percentage	2,658	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 50% uptake at this stage of water shortage	No
4b, 4c	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No
4b, 4c	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	No water for decorative fountains allowed, even if it has a re-circulating system	Yes
4b, 4c	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
4b, 4c	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
4b, 4c	Other - Require automatic shut of hoses	Percentage	0		Yes
4b, 4c	CII - Restaurants may only serve water upon request	Percentage	0		Yes
4b, 4c	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
4b, 4c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
4b, 4c	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety, unless water demand is offset to a net zero increase.	Yes
4b, 4c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5a, 5b	Implement or Modify Drought Rate Structure or Surcharge	Percentage	17,545	Residential Tier 1 budgets are decreased up to 30%; agricultural and agricultural/residential Tier 1 budgets are decreased by up to 60%. Assumes 50% compliance	Yes
5a, 5b	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
5a, 5b	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
5a, 5b	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 50% uptake	No
5a, 5b	Provide Rebates for Turf Replacement	Percentage	2,658	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 50% uptake at this stage of water shortage	No
5a, 5b	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No
5a, 5b	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	No water for decorative fountains allowed, even if it has a re-circulating system	Yes
5a, 5b	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
5a, 5b	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
5a, 5b	Other - Require automatic shut of hoses	Percentage	0		Yes

5a, 5b	CII - Restaurants may only serve water upon request	Percentage	0		Yes
5a, 5b	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
5a, 5b	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5a, 5b	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety.	Yes
5a, 5b	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5a, 5b	Other water feature or swimming pool restriction	Percentage	0	Water for refilling pool and spa is prohibited	Yes
5c	Implement or Modify Drought Rate Structure or Surcharge	Percentage	19,672	Residential Tier 1 budgets are decreased by 50%; agricultural and agricultural/residential Tier 1 budgets are decreased by up to 70%. Assumes 50% compliance	Yes
5c	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
5c	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
5c	Offer Water Use Surveys	Percentage	2,127	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 80% uptake	No
5c	Provide Rebates for Turf Replacement	Percentage	4,253	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 80% uptake at this stage of water shortage	No
5c	Provide Rebates for Landscape Irrigation Efficiency	Percentage	2,127	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of80% at this stage	No
5c	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	No water for decorative fountains allowed, even if it has a re-circulating system	Yes
5c	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
5c	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
5c	Other - Require automatic shut of hoses	Percentage	0		Yes
5c	CII - Restaurants may only serve water upon request	Percentage	0		Yes
5c	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
5c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5c	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety.	Yes
5c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5c	Other water feature or swimming pool restriction	Percentage	0	Water for refilling pool and spa is prohibited	Yes

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

NOTES:

Submittal Table 10-1 Retail: Notification to Cities and Counties Water Code Section 10621(b) and 10642		
City Name	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Add additional rows as needed		
Temecula	Yes	Yes
Murrieta	Yes	Yes
County Name **Drop Down List**	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Add additional rows as needed		
Riverside County	Yes	Yes
NOTES:		

Optional Submittal Table O-1B: Recommended Energy Reporting - SINGLE DELIVERY PRODUCT - TOTAL UTILITY APPROACH

Water Delivery Product drop down list (If delivering more than one type of product recommend using Table O-1C)	Multiple Products (if unable to use table O-1C)	**Only for Water Delivery Products Under the Urban Water Supplier's Operational Control**		
Start Date of Reporting Period	7/1/2024	**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
End Date of Reporting Period	60/30/2025			
Is upstream embedded energy in the values reported?	No			
Units of Measure for Water	(AF)	**Total Utility** See DWR NOTES	**Hydropower**	**Net Utility**
Volume of Water Entering Process		54,215	-	54,215
Energy Consumed (kWh)		56,937,849	-	56,937,849
Energy Intensity (kWh/vol. converted to MG)		3,223	-	3,223

DWR NOTES:

Total Utility: The volume of water entered in the "Total Utility" column should equal the volume of water entering the distribution system (excluding recycled water); in most cases, this is the total volume calculated in UWMP Table 4-1: 2025 Actual Total Uses for Potable and Non-Potable Water. Note if recycled water is included in your Submittal Table 4-1, you must exclude it from your volume in this table.

Quantity of Self-Generated Renewable Energy

Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)

Data Quality Narrative:

Narrative:

NOTES:

Appendix C: Board of Directors Adoption of the 2025 UWMP

Appendix D: Water System Audit Output

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association
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? Click to access definition
+ Click to add a comment

Water Audit Report for: Rancho California Water District (CA3310038)
Reporting Year: 2021 7/2020 - 6/2021

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	5	31,587.580	acre-ft/yr	3		4.070	acre-ft/yr
Water imported:	10	25,687.100	acre-ft/yr	10			acre-ft/yr
Water exported:	5	234.090	acre-ft/yr	5			acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 57,036.520 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option

				Pcnt:	Value:	
Billed metered:	5	53,092.660	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	n/a		acre-ft/yr			
Unbilled unmetered:		712.957	acre-ft/yr	1.25%		acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 53,805.617 acre-ft/yr

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

3,230.904 acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		142.591	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	5	266.797	acre-ft/yr	0.50%		acre-ft/yr
Systematic data handling errors:		132.732	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 542.120 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 2,688.783 acre-ft/yr

WATER LOSSES: 3,230.904 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 3,943.860 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	947.7	miles
Number of active AND inactive service connections:	10	45,051	
Service connection density:		48	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	110.5	psi

COST DATA

Total annual cost of operating water system:	10	$115,141,118	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$1.76	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	7	$1,361.07	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 69 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.
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Click to access
Click to add a

Water Audit Report for: Rancho California Water District (CA3310038)
Reporting Year: 2022 | 7/2021 - 6/2022

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	5	31,912.000	acre-ft/yr	8		-3.100	acre-ft/yr
Water imported:	7	22,350.300	acre-ft/yr	4			acre-ft/yr
Water exported:	3	188.200	acre-ft/yr	4			acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 54,077.200 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	9	49,821.000	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	n/a		acre-ft/yr			
Unbilled unmetered:		675.965	acre-ft/yr	1.25%		acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 50,496.965 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

3,580.235 acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		135.193	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	5	250.357	acre-ft/yr	0.50%		acre-ft/yr
Systematic data handling errors:		124.553	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 510.102 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 3,070.133 acre-ft/yr

WATER LOSSES: 3,580.235 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 4,256.200 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	951.9	miles
Number of active AND inactive service connections:	10	45,172	
Service connection density:		47	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	5	110.5	psi

COST DATA

Total annual cost of operating water system:	10	$121,152,710	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$4.34	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	7	$1,396.37	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 69 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Water imported

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Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

			choose entry option:										
VOS	Volume from Own Sources:	n g 3	30,813.380	Acre-ft/Yr	n g 8		volume	16.000	acre-ft/yr	under-registration	VOSEA
WI	Water Imported:	n g 7	14,724.600	Acre-ft/Yr	n g 10	0.00%	percent				WIEA
WE	Water Exported:	n g 3	223.100	Acre-ft/Yr	n g 4	0.00%	percent				WEEA
	WATER SUPPLIED:		45,330.880	Acre-ft/Yr							

AUTHORIZED CONSUMPTION

					choose entry option:		
BMAC	Billed Metered:	n g 9	43,231.440	Acre-ft/Yr			
BUAC	Billed Unmetered:	n g n/a		Acre-ft/Yr			
UMAC	Unbilled Metered:	n g n/a		Acre-ft/Yr			
UUAC	Unbilled Unmetered:	n g 3	108.079	Acre-ft/Yr	0.25%	default	
	Default option selected for Unbilled Unmetered, with automatic data grading of 3						
	AUTHORIZED CONSUMPTION:		43,339.519	Acre-ft/Yr			

WATER LOSSES

1,991.361 Acre-ft/Yr

Apparent Losses

	Default option selected for Systematic Data Handling Errors, with automatic data grading of 3				choose entry option:		
SDHE	Systematic Data Handling Errors:	n g 3	108.079	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n g 3	217.243	Acre-ft/Yr	0.50%	percent	under-registration
UC	Unauthorized Consumption:	n g 3	108.079	Acre-ft/Yr	0.25%	default	
	Default option selected for Unauthorized Consumption, with automatic data grading of 3						
	Apparent Losses:		433.401	Acre-ft/Yr			

Real Losses

	Real Losses:		1,557.961	Acre-ft/Yr
	WATER LOSSES:		1,991.361	Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 2,099.440 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n g 10	956.4	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n g 10	45,292		(active *and* inactive)
	Service connection density:		47	conn./mile main	
	Are customer meters typically located at the curbstop/property line?		Yes		
Lp		n g 10			
	Average length of customer service line has been set to zero and a data grading of 10 has been applied				
AOP	Average Operating Pressure:	n g 9	110.5	psi	

COST DATA

CRUC	Customer Retail Unit Charge:	n g 10	$1.88	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n g 10	$1,496.44	$/acre-ft	$121,574,800	$/yr (optional input)

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Customer Metering Inaccuracies (CMI)
3: Water Imported (WI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	10.0	gal/conn/day
Unit Real Losses[A]:	39.4	gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

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Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments — choose entry option:

		n	g				n	g						
VOS	Volume from Own Sources:	n	g	3	30,121.020	Acre-ft/Yr	n	g	8		volume	25.393	acre-ft/yr	over-registration	VOSEA
WI	Water Imported:	n	g	7	13,036.300	Acre-ft/Yr	n	g	10	0.00%	percent				WIEA
WE	Water Exported:	n	g	3	259.960	Acre-ft/Yr	n	g	3	0.00%	percent				WEEA

WATER SUPPLIED: 42,871.967 Acre-ft/Yr

AUTHORIZED CONSUMPTION

choose entry option:

		n	g					
BMAC	Billed Metered:	n	g	5	39,595.660	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a		Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	n/a		Acre-ft/Yr		
UUAC	Unbilled Unmetered:	n	g	3	98.989	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 39,694.649 Acre-ft/Yr

WATER LOSSES

3,177.318 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

		n	g							
SDHE	Systematic Data Handling Errors:	n	g	3	98.989	Acre-ft/Yr	0.25%	default		
CMI	Customer Metering Inaccuracies:	n	g	3	1,000.000	Acre-ft/Yr	volume	1,000.000	acre-ft/yr	under-registration
UC	Unauthorized Consumption:	n	g	3	98.989	Acre-ft/Yr	0.25%	default		

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 1,197.978 Acre-ft/Yr

Real Losses

Real Losses: 1,979.340 Acre-ft/Yr

WATER LOSSES: 3,177.318 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 3,276.307 Acre-ft/Yr

SYSTEM DATA

		n	g				
Lm	Length of mains:	n	g	10	955.8	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	45,374		(active *and* inactive)
	Service connection density:				47	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp — n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

		n	g			
AOP	Average Operating Pressure:	n	g	9	114.0	psi

COST DATA

		n	g						
CRUC	Customer Retail Unit Charge:	n	g	10	$1.93	$/100 cubic feet (ccf)	Total Annual Operating Cost		
VPC	Variable Production Cost:	n	g	8	$1,611.26	$/acre-ft	$126,228,880	$/yr (optional input)	

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Customer Metering Inaccuracies (CMI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	10.0	gal/conn/day
Unit Real Losses[^]:	39.4	gal/conn/day
Unit Real Losses[n]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

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Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

		n	g			Acre-ft/Yr	n	g						
VOS	Volume from Own Sources:	n	g	3	31,251.200	Acre-ft/Yr	n	g	8		volume	74.380	acre-ft/yr	under-registration VOSEA
WI	Water Imported:	n	g	7	20,080.000	Acre-ft/Yr	n	g	10	0.00%	percent			WIEA
WE	Water Exported:	n	g	7	280.840	Acre-ft/Yr	n	g	3	0.00%	percent			WEEA

WATER SUPPLIED: 51,124.740 Acre-ft/Yr

AUTHORIZED CONSUMPTION

choose entry option:

		n	g					
BMAC	Billed Metered:	n	g	9	48,010.000	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a		Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	n/a		Acre-ft/Yr		
UUAC	Unbilled Unmetered:	n	g	3	120.025	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 48,130.025 Acre-ft/Yr

WATER LOSSES

2,994.715 Acre-ft/Yr

Apparent Losses

choose entry option:

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

		n	g						
SDHE	Systematic Data Handling Errors:	n	g	3	120.025	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	2	241.256	Acre-ft/Yr	0.50%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	120.025	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 481.306 Acre-ft/Yr

Real Losses

Real Losses: 2,513.409 Acre-ft/Yr

WATER LOSSES: 2,994.715 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 3,114.740 Acre-ft/Yr

SYSTEM DATA

		n	g				
Lm	Length of mains:	n	g	10	956.3	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	45,435		(active *and* inactive)
	Service connection density:				48	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP Average Operating Pressure: n g 9 114.0 psi

COST DATA

		n	g					
CRUC	Customer Retail Unit Charge:	n	g	10	$2.10	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	10	$1,543.73	$/acre-ft	$145,137,235	$/yr (optional input)

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Customer Metering Inaccuracies (CMI)
3: Water Imported (WI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	10.0	gal/conn/day
Unit Real Losses[A]:	50.8	gal/conn/day
Unit Real Losses[D]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

Appendix E: Data to Document Consistency with Delta Plan Policy WR P1

Appendix E
Data to Document Consistency with Delta Plan Policy WR P1

As stated in the 2025 UWMP Guidebook Appendix C (Draft version dated March 2026):

"An urban water supplier (Supplier) that anticipates participating in or receiving water supply benefits from a proposed project (covered action[1)] such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Sacramento-San Joaquin Delta (Delta) should provide information in their Urban Water Management Plans (UWMP's), beginning 2015, that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, *Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance* (WR P1) as codified in 23 California Code Regulations (CCR) Section 5003 (Delta Stewardship Council [DSC] 2024).",WR P1 subsection (c)(1) further defines what adequately contributing to reduced reliance on the Delta means in terms of (a)(1) above.

> "(c)(1) Water suppliers that have done all the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:
>
> > (A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;
> >
> > (B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and
> >
> > (C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a)."

[1] Cal. Code Regs., tit. 23, § 5001, subd. (j): A "Covered action" is defined as "an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, or a reasonably foreseeable indirect physical change in the environment … "directly undertaken by any public agency""(Pub. Resources Code, § 21065) that (i) will occur, in whole or in part, within the boundaries of the Delta or Suisun Marsh, (ii) will be carried out, approved, or funded by the state or a local public agency, (iii) is covered by one or more provisions of the Delta Plan, and (iv) will have a significant impact on achievement of one or both of the coequal goals or the implementation of government-sponsored flood control programs to reduce risks to people, property, and state interest in the Delta."

Preparation of UWMPs and Implementation of Projects from the UWMP

Rancho Water completed and submitted to DWR, 2005, 2010, 2015, and 2020 Urban Water Management Plans, in addition to this 2025 UWMP. Rancho Water has identified, evaluated and implemented projects that are locally cost effective and technically feasible which improve local reliability and reduce reliance on the Delta.

Expected Outcomes for Measurable Reduction in Delta Reliance

The expected outcomes for Rancho Water's Delta reliance and regional self-reliance were developed based on the approach and guidance described in Appendix C of DWR's Urban Water Management Plan Guidebook 2025 (Draft version dated January 2026) and are summarized in Tables E-1 to E-4 below.

This involves setting a baseline and evaluating normal year water demands (potable and non-potable), estimating service area population and water use in gallons per capita per day, evaluating and projecting water supply sources to meet estimated normal year demands including supplies from the Delta, local groundwater and surface water supplies, and non-potable supplies. Inputs to Table E-1, E-2, and E-3 include:

- **Baseline**. In order to calculate the expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance, a baseline is needed to compare against. For consistency with reporting done by Rancho Water's wholesale suppliers (Eastern Municipal Water District, Western Municipal Water District, and Metropolitan Water District of Southern California), Rancho Water is using year 2010 as the baseline year. This analysis uses a normal water year representation of 2010 as the baseline. Data for the 2010 baseline were taken from Rancho Water 2005 UWMP as the UWMPs generally do not provide normal water year data for the year that they are adopted (i.e., 2005 UWMP forecasts normal year 2010, 2010 UWMP forecasts normal year 2015, and so on).

- **Service Area Demands**. Service area demands, including demands for non-potable water, for 2010, 2015, 2020 and 2025 were taken from projections from the previous (2005, 2010, 2015, and 2020) UWMPs. Service area demands 2030 to 2050 were taken from projections developed as part of the 2025 UWMP.

- **Service Area Population**. Consistent with the methodology for service area demands (using normal year projections from the previous UWMP), service area population for 2010 were taken from the previous (2005) UWMP. Consideration was given to using 2010 UWMP service area population projections for 2015 but because the 2015 UWMP had the benefit of complete Census data, year 2015 population data was taken from the 2015 UWMP. 2020 service area population projections were taken from the 2015 UWMP. Year 2030-2050 service area population were taken from the 2025 UWMP.

The outcome of Table E-1 is a calculation of water use efficiency since the baseline year (2010). The calculation uses the change in gallons per capita per day and service area population to estimate water use efficiency in years 2015 through 2050 compared to the baseline year of 2010. The results of Table E-1 are summarized in Table E-2.

- **Supplies Contributing to Regional Self-Reliance**. In Table E-3, the estimate of water use efficiency is taken from Table E-2. Other water supplies, such as recycled water and advanced water technologies were taken from previous UWMPs (2005 projections were supplied for 2010 etc.). For years 2030-2050 local supplies were taken from projections prepared for the 2025 UWMP.

The outcome of Table E-3 is an estimate of the supplies contributing to regional self-reliance.

- **CVP/SWP Contract Supplies**. CVP/SWP contract supplies were estimated based on the percentage of Delta supplies provided as a percentage of overall imported supplies from Rancho Water's imported water suppliers. Given that all of Rancho Water's imported supplies come from the Metropolitan Water District of Southern California, data from that agency provided in its Draft 2025 UWMP, Appendix C Table A.10-3, was utilized to estimate the percentages of supplies from the Delta watershed. Assumptions for Table E-3 include:

    - When supplies are greater than demands, imported water from MWD is the first source reduced. The imported water supplies projected in past UWMPs and the 2025 UWMP reflect the supplies Rancho Water anticipates being available, and do not directly reflect how much imported water Rancho Water would purchase that year. Rather, to minimize cost Rancho Water will rely first on native groundwater and recycled water supplies and use imported water to make up the difference in demand for direct water deliveries and to support artificial groundwater recharge. For this reason the volume of imported water reflected in Table E-4 is greater than the volume that would likely be utilized by Rancho Water in a normal year. Data for CVP/SWP Contract Supplies, percent of supplies coming from CVP/SWP taken from Table A.10-3 of Metropolitan's 2025 Draft UWMP, Appendix C. The percentages are as follows:

27.7 % in 2010	24.2% in 2025	18.8% in 2040
19.5% in 2015	20.6% in 2030	18.0% in 2045
20.6% in 2020	19.6% in 2035	17.7% in 2050

The outcome of Table E-4 is a calculation of the percent change in supplies from the Delta watershed relative to the 2010 Baseline.

Table E-4 illustrates that from 2015 to 2025 Rancho Water reduced reliance on the Delta and is projected to reduce reliance on the Delta through year 2050.

Table E-1: Calculation of Water Use Efficiency -To be completed if Water Supplier does not specifically estimate Water Use Efficiency as a supply

Service Area Water Use Efficiency Demands (Acre-Feet)	Baseline (2010)	2015*	2020*	2025*	2030	2035	2040	2045	2050 (optional)
Service Area Water Demands with Water Use Efficiency Accounted For	60,258	77,524	77,623	77,199	77,261	77,319	77,377	77,436	77,496
Non-Potable Water Demands	4,367	4,500	4,599	4,175	4,237	4,295	4,353	4,412	4,472
Potable Service Area Demands with Water Use Efficiency Accounted For	55,891	73,024	73,024	73,024	73,024	73,024	73,024	73,024	73,024

Total Service Area Population	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
Service Area Population	121,324	140,390	154,222	157,451	163,731	167,344	172,286	178,670	185,290

Water Use Efficiency Since Baseline (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
Per Capita Water Use (GPCD)	411	464	423	414	398	390	378	365	352
Change in Per Capita Water Use from Baseline (GPCD)		53.10	11.45	2.78	-13.10	-21.70	-32.87	-46.39	-59
Estimated Water Use Efficiency Since Baseline		-12,849	-6,576	-4,665	-1,834	-227	1,991	4,873	7,863

* The "Service Area Water Demands with Water Use Efficiency Accounted For" has been modified from that reported in the 2015 UWMP Addendum and 2020 UWMP. In those previous versions, service area demands included wheeled water and water discharged to the Santa Margarita River. This has been corrected in this version.

Table E-2: Calculation of Service Area Water Demands Without Water Use Efficiency

Total Service Area Water Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
Service Area Water Demands with Water Use Efficiency Accounted For	60,258	77,524	77,623	77,199	77,261	77,319	77,377	77,436	77,496
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline		0	-6,576	-4,665	-1,834	-227	1,991	4,873	7,863
Service Area Water Demands without Water Use Efficiency Accounted For	60,258	77,524	71,047	72,534	75,427	77,092	79,368	82,309	85,359

Table E-3: Calculation of Supplies Contributing to Regional Self-Reliance

Water Supplies Contributing to Regional Self-Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
Water Use Efficiency	0	0	-6576	-4665	-1834	-227	1991	4873	7863
Water Recycling	4,367	4,500	4,599	4,175	4,237	4,295	4,353	4,412	4,472
Stormwater Capture and Use									
Advanced Water Technologies									
Conjunctive Use Projects									
Local and Regional Water Supply and Storage Projects									
Other Programs and Projects the Contribute to Regional Self-Reliance									
Water Supplies Contributing to Regional Self-Reliance	7,890	4,500	-1,977	-490	2,403	4,068	6,344	9,285	12,335

Service Area Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
Service Area Water Demands without Water Use Efficiency Accounted For	87,700	77,524	71,047	72,534	75,427	77,092	79,368	82,309	85,359

Table E-3 cont.

Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
Water Supplies Contributing to Regional Self-Reliance	7,890	4,500	-1,977	-490	2,403	4,068	6,344	9,285	12,335
Change in Water Supplies Contributing to Regional Self-Reliance		-3,390	-9,867	-8,380	-5,487	-3,822	-1,546	1,395	4,445

Percent Change in Regional Self Reliance (As Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
Percent of Water Supplies Contributing to Regional Self-Reliance	9.00%	6.16%	-2.71%	-0.67%	3.29%	5.57%	8.69%	12.72%	16.89%
Change in Percent of Water Supplies Contributing to Regional Self-Reliance		-2.84%	-11.71%	-9.67%	-5.71%	-3.43%	-0.31%	3.72%	7.89%

Table E-4: Calculation of Reliance on Water Supplies from the Delta Watershed

Water Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
CVP/SWP Contract Supplies	14,908	12,472	12,548	13,092	9,522	9,329	9,261	9,176	9,337
Delta/Delta Tributary Diversions									
Transfers and Exchanges of Supplies from the Delta Watershed									
Other Water Supplies from the Delta Watershed									
Total Water Supplies from the Delta Watershed	14,908	12,472	12,548	13,092	9,522	9,329	9,261	9,176	9,337

Service Area Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
Service Area Water Demands without Water Use Efficiency Accounted For	87,700	77,524	71,047	72,534	75,427	77,092	79,368	82,309	85,359

Table E-4 cont.

Change in Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
Water Supplies from the Delta Watershed	14,908	12,472	12,548	13,092	9,522	9,329	9,261	9,176	9,337
Change in Water Supplies from the Delta Watershed		-2,436	-2,360	-1,816	-5,386	-5,579	-5,647	-5,732	-5,571

Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (optional)
Percent of Water Supplies from the Delta Watershed	17.00%	16.09%	17.66%	18.05%	12.62%	12.10%	11.67%	11.15%	10.94%
Change in Percent of Water Supplies from the Delta Watershed		-0.91%	0.66%	1.05%	-4.38%	-4.90%	-5.33%	-5.85%	-6.06%

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Santa Margarita River Watershed Annual Watermaster Report, Water Year 2022-23, Michael Preszler, Watermaster, July 2025

Recommended Ground Water Production, Fiscal Year July 1, 2025 through June 30, 2026, Rancho California Water District, January 2025

Cooperative Water Resource Management Agreement between Camp Pendleton and Rancho California Water District, Calendar Year 2014

Permit for Diversion and Use of Water, Amended Permit 7032, Temecula Creek/Santa Margarita River for use in Vail Lake and District M&I by Rancho California Water District, April 22, 2009 and 1946 Application to Appropriate Unappropriated Water

Pechanga Water Rights Settlement Agreement

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATERMASTER REPORT

WATER YEAR 2022-23

UNITED STATES OF AMERICA
V.
FALLBROOK PUBLIC UTILITY DISTRICT, ET AL.

CIVIL NO. 51-CV-01247-GPC-SBC

MICHAEL J. PRESZLER, P.E.
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JULY 2025

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATERMASTER REPORT

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JULY 2025

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List of abbreviations, acronyms, and initialisms contained in this document

AF – Acre-Feet
BIA – Bureau of Indian Affairs
Camp Pendleton, or **CPEN** – Marine Corps Base Camp Pendleton
CASGEM – California Statewide Groundwater Elevation Monitoring
CDFW – California Department of Fish and Wildlife
cfs – Cubic feet per second
Court, or **District Court** - United States District Court for the Southern District of California
CUP – Santa Margarita River Conjunctive Use Project
CWRMA – Cooperative Water Resource Management Agreement
DWR – California Department of Water Resources
EMWD – Eastern Municipal Water District
EVMWD – Elsinore Valley Municipal Water District
FPUD – Fallbrook Public Utility District
GAMA – Groundwater Ambient Monitoring and Assessment
GW - Groundwater
IRWM – Integrated Regional Water Management
LSMRWM Program – Lower Santa Margarita River Watershed Monitoring Program
MCL – Maximum Contaminant Level
MGD – Million gallons per day
MOU – Memorandum of Understanding
MWD – Metropolitan Water District of Southern California
NWS – Naval Weapons Station Seal Beach, Detachment Fallbrook
Pechanga – Pechanga Band of Indians
RCWD – Rancho California Water District
Regional Board – Regional Water Quality Control Board, San Diego Region
RMWD – Rainbow Municipal Water District
SBM – San Bernardino Meridian
SGMA – Sustainable Groundwater Management Act
SMR – Santa Margarita River
SMRW, or **Watershed** – Santa Margarita River Watershed
SWP – State Water Project
SWRCB, or **Board** –State Water Resource Control Board
TDS – Total Dissolved Solids
TMDL – Total Maximum Daily Load
TVRWRF – Temecula Valley Regional Water Reclamation Facility
USGS – United States Geological Survey
VDC – Valle De los Caballos Recharge Area
WMWD – Western Municipal Water District
WY – Water Year

SECTION 1 – SUMMARY

Section 1 - A summary of the Santa Margarita River Watershed (SMRW or Watershed) Annual Watermaster Report for the 2022-23 Water Year (WY).

Section 2 - This Annual Watermaster Report is prepared pursuant to the U. S. District Court Order dated March 13, 1989. The Court retains jurisdiction over all surface flows of the SMRW and all underground waters determined by the Court to be subsurface flow of streams or creeks, or which are determined by the Court to add to, support, or contribute to the Santa Margarita River (SMR) stream system. The SMRW is adjudicated, as to all underground waters, basins, surface flow, streams and subsurface flows that add to, support, or contribute to the SMR stream system. Local vagrant groundwaters that do not support the SMR stream system are outside Court jurisdiction.

Section 3 - Flows for long-term stations on Murrieta Creek at Temecula, SMR near Temecula, and SMR at Ysidora were 275.5%, 228.0%, and 343.4% of their long-term averages, respectively. Flows at Temecula Creek near Aguanga were 174.8% of the long-term average. Private pumpers' direct surface diversions to use totaled 510.5 acre-feet (AF), which reflects in increase of 35.9 AF from the prior year. The total quantity of surface water in storage in the Watershed on September 30, 2023, was 726,330 AF, of which 16,019 AF were SMR water and 710,311 AF were imported water.

Section 4 - Total local production, including groundwater extractions and surface diversions in 2022-23 was 29,930 AF. This compares with 28,095 AF in 2021-22 and represents an increase of about 6.5%. Total annual local production for use for the period 2014 through 2023 is shown on Figure 1.1.

Section 5 - During 2022-23, 51,509 AF of net imports were distributed for use within the Watershed, as shown on Table 5.2. This compares with 69,998 AF in 2021-22 and represents a decrease of about 26.4%. Annual imports for the period 2014 through 2023 are shown on Figure 1.2 and Table 5.4. Exports of wastewater and native water for use outside the Watershed in 2022-23 were 21,175 AF. This compares with 19,465 AF (revised) in 2021-22 and represents an increase of approximately 11.6%.

Section 6 - Water rights consist primarily of riparian and overlying rights. Other rights include appropriative rights and federal reserved rights. Water purveyors in the SMRW also exercise groundwater appropriative rights. Except for surface water appropriative rights, water rights generally have not been quantified in the Watershed. Appropriative surface water rights on file with the State Water Resources Control Board (SWRCB) amount to 17,101 AF per year of direct diversion rights and 84,520 AF of active storage rights.

Figure 1.1

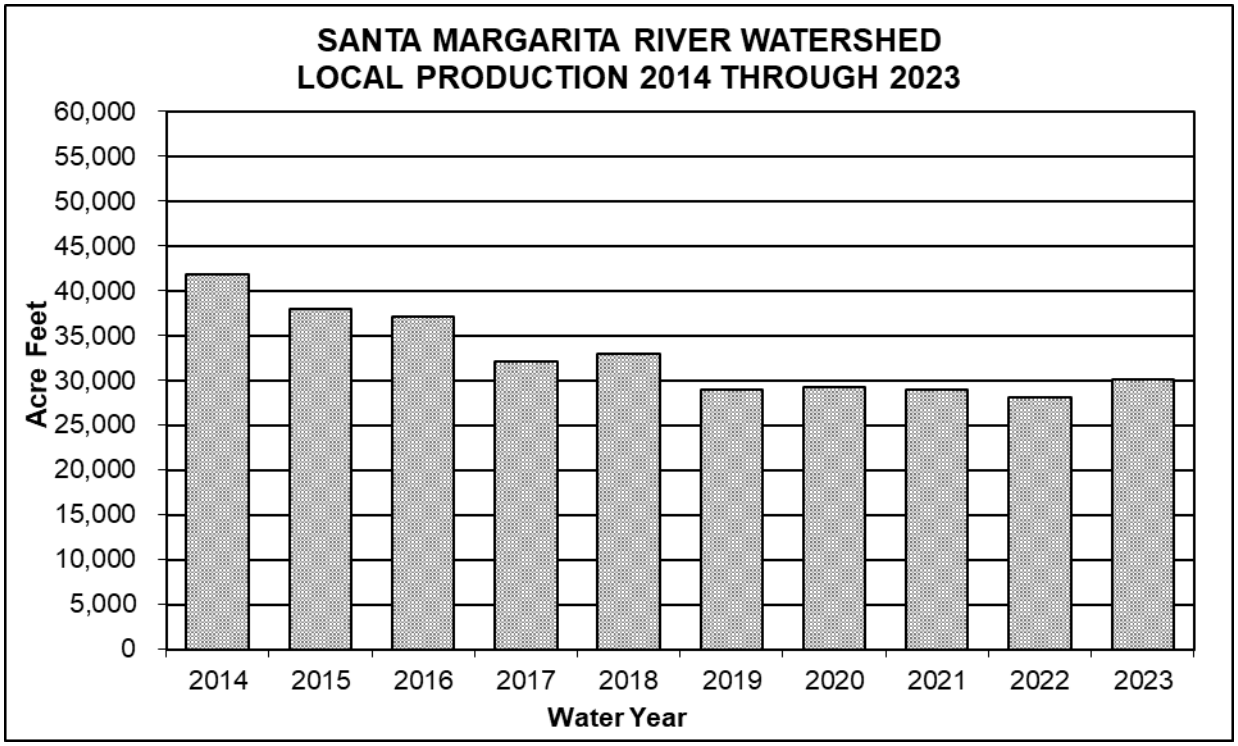
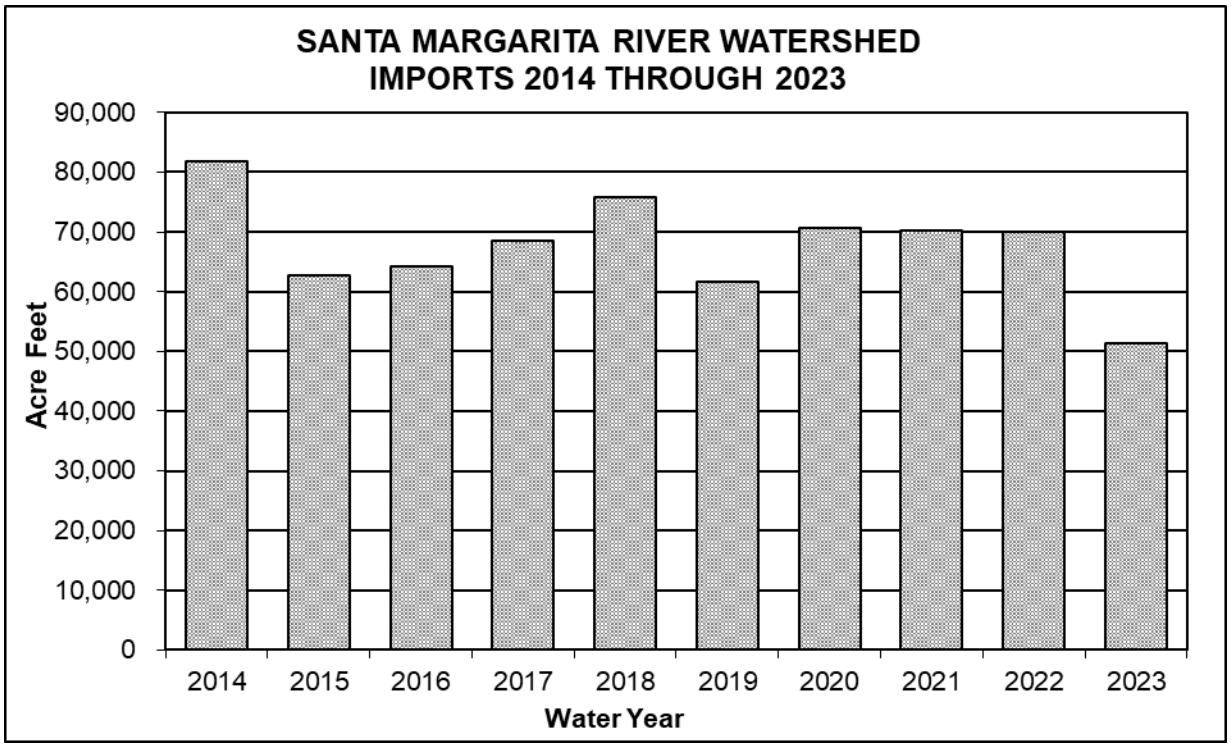


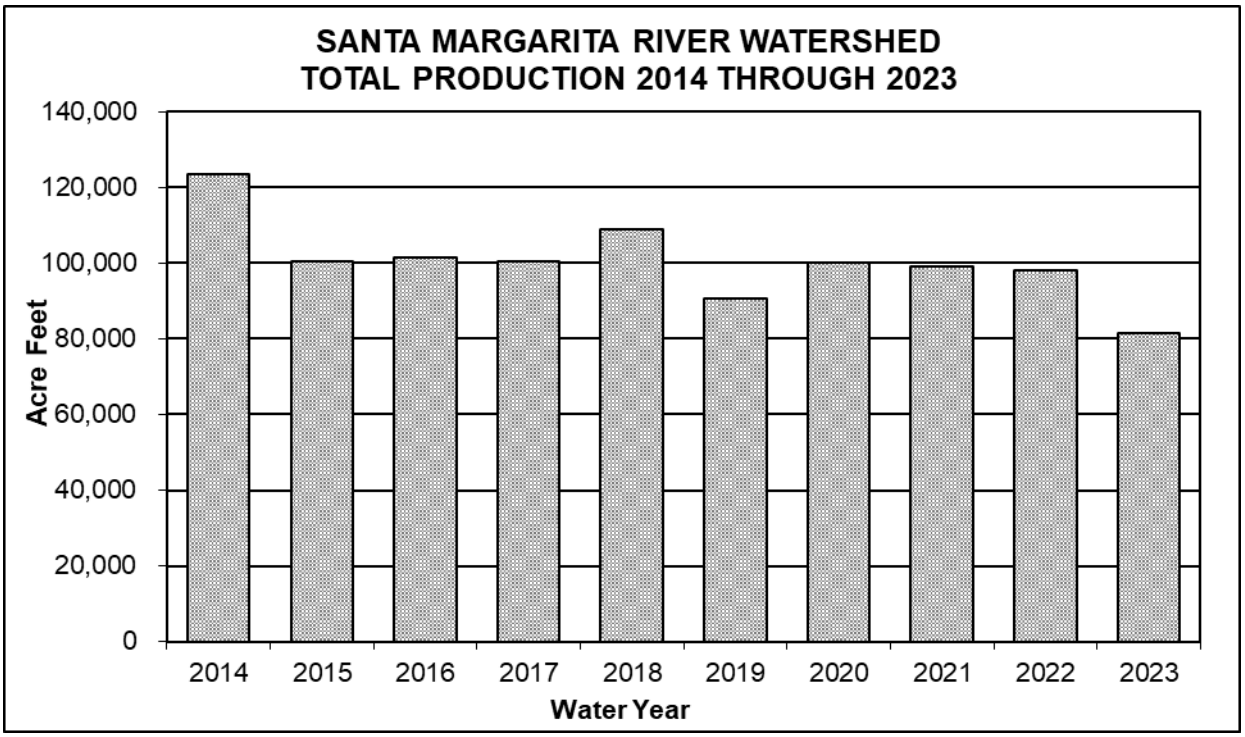
Figure 1.2



Section 7 - Total imported supplies plus local production during 2022-23 totaled 81,439 AF compared to 98,092 AF reported in 2021-22. Of that quantity, 18,737 AF were used for agriculture; 12,428 AF were used for commercial purposes; 39,925 AF were used for domestic purposes; 4.7 AF were discharged to Temecula Creek; 6.2 AF were discharged to Murrieta Creek; and 3,099 AF were discharged by Rancho California Water District (RCWD) from Metropolitan Water District of Southern California (MWD) Service Connection WR-34 and 790 AF from the potable connection during 2022-23, pursuant to the Cooperative Water Resource Management Agreement (CWRMA). It is noted, commercial use includes 456 AF of recycled water and thus the commercial use of production is 11,972 AF (rounded). The overall system loss was 4,555 AF. System gain or loss is the result of many factors including errors in measurement, differences between periods of use and periods of production, leakage and unmeasured uses. These data are shown in Table 7.1.

Total annual production for the period 2014 through 2023 is shown on Figure 1.3.

Figure 1.3



Section 8 - Use of water from small storage ponds may be unauthorized. Marine Corps Base Camp Pendleton (Camp Pendleton, or CPEN), represented by the United States, has taken the position that exportation of treated wastewater, the source of which is the native waters of the SMR system, without legal authority for such exportation, is an unauthorized use of water.

Section 9 - Threats to water supply include high nitrate levels in Rainbow Creek and Anza Valley in past years, potential overdraft conditions in the Murrieta-Temecula Aguanga, and Anza groundwater basins, and salt balance issues in the upper Watershed. Additional threats have been recently identified, including high concentrations of nitrates in both Anza Valley and Murrieta-Temecula areas, arsenic, fluoride and manganese in the Murrieta-Temecula area, as well as the discovery of the quagga mussel in imported supplies.

Section 10 - The United States Geological Survey (USGS) monitored surface water quality at the Temecula gaging station on the SMR.

Groundwater samples from wells were analyzed for water quality by CPEN, Western Municipal Water District - Murrieta Division (WMWD), RCWD, the Pechanga Band of Indians (Pechanga), and in the Domenigoni Valley during 2022-23. The two primary constituents of interest are nitrates and total dissolved solids (TDS). The Basin Plan Objective for TDS of 750 mg/l was met or exceeded in all eight wells sampled at CPEN. One well sampled by RCWD showed a TDS concentration exceeding 750 mg/l. Several wells and West Dam weirs sampled in the Domenigoni Valley showed TDS and nitrate exceedances.

Section 11 - The CWRMA between CPEN and RCWD was approved by the District Court on August 20, 2002. During the 2023 calendar year, RCWD discharged 3,812.8 AF into the SMR to meet flow requirements under the CWRMA.

Section 12 - Projected Watermaster expenditures for the next five years are listed.

Section 13 – The actual Watermaster costs for 2022-23 were $860,585.50 (total operating expenses less depreciation) compared to the Court approved budget of $876,321, resulting in a favorable variance of $15,735.50. A total Watermaster budget for WY 2024-25 is proposed to be $919,680. This budget includes $593,710 for the Watermaster Office and $325,970 for operation of gaging stations and groundwater monitoring by USGS.

SECTION 2 - INTRODUCTION

2.1 Background

On January 25, 1951, the United States of America filed Complaint No. 1247 in the United States District Court for the Southern District of California (Court or District Court) to seek an adjudication of all water rights within the Santa Margarita River Watershed (SMRW, or Watershed). The Final Judgment and Decree was entered on May 8, 1963 and appealed to the U.S. Court of Appeals. A Modified Final Judgment and Decree was entered on April 6, 1966. Among other things, the Decree provides that the Court:

> . . . retains continuing jurisdiction of this cause as to the use of all surface waters within the watershed of the Santa Margarita River and all underground or sub-surface waters within the watershed of the Santa Margarita River, which are determined in any of the constituent parts of this Modified Final Judgment to be a part of the sub-surface flow of any specific river or creek, or which are determined in any of the constituent parts of this Modified Final Judgment to add to, contribute to, or support the Santa Margarita River stream system.

In March 1989, the Court issued an Order appointing a Watermaster to administer and enforce the provisions of the Modified Final Judgment and Decree and subsequent orders of the Court. The appointing Order described the Watermaster's powers and duties as well as procedures for funding and operating the Watermaster's office. Also in 1989, the Court appointed a Steering Committee that at the conclusion of 2022-23 was comprised of representatives from the United States, representing Marine Corps Base Camp Pendleton (CPEN), Eastern Municipal Water District (EMWD), Fallbrook Public Utility District (FPUD), Metropolitan Water District of Southern California (MWD), Pechanga Band of Indians (Pechanga), Western Municipal Water District (WMWD), and Rancho California Water District (RCWD). The purposes of the Steering Committee are to assist the Court, to facilitate litigation, and to assist the Watermaster.

2.2 Authority

Section II of the appointing Order requires that the Watermaster submit a written report containing findings and conclusions to the Court promptly after the end of each Water Year (WY).

2.3 Scope

The subjects addressed in this report are responsive to Section II of the appointing Order. Information and data contained in this report are based on information reported to the Watermaster by the various water users within the Watershed and others. Therefore, the Watermaster does not guarantee the completeness and accuracy of the information reported and presented in this report, although most of the data presented are based on measurements. Estimates by the Watermaster are so noted.

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SECTION 3 - SURFACE WATER AVAILABILITY AND USE

3.1 Surface Flow

Over the years, flows in the SMRW have been measured at the stations listed on Table 3.1. A number of these stations have been discontinued. During 2022-23, the USGS operated 13 stations under an agreement with the Watermaster. These include three stations where Riverside County Flood Control and Water Conservation District share the local costs with the Watermaster. In addition to stream flows, the United States Geological Survey (USGS) also measures water surface elevation at Vail Lake.

The USGS also operates several stations in the Watershed under contract with CPEN. These include stream gaging stations on Fallbrook Creek and on the outlet channel and spillway for Lake O'Neill. The USGS also operates a tidal water level recorder at the mouth of the SMR.

Monthly flows for stations in 2022-23 are shown on Table 3.2. Those flows consist of final USGS discharge determinations approved for publication by the USGS. Official USGS discharges for 2022-23 are published by the USGS at the following website: *http://waterdata.usgs.gov/ca/nwis/sw*.

In considering the historical record of flow at these stations, it should be recognized that the long-term averages include variations in Watershed conditions such as level of development, groundwater production, return flows, impoundments and vegetative use as well as hydrologic conditions, changes in gaging station locations and other factors. Descriptions of the various historical locations of gaging stations may be found in the publication, Water Resources Data - California, which was published annually by the USGS in hard copy form through WY 2004. For subsequent years, the gaging station descriptions can be found at the website provided above.

TABLE 3.1

SANTA MARGARITA RIVER WATERSHED
STREAM GAGING STATIONS THROUGH WATER YEAR 2022-23

Station Name	Station No.	Area Sq. Miles	Entity	Period Of Record
Temecula Creek Near Aguanga	11042400	131	USGS	August 1957 to Present
Wilson Creek Above Vail Lake Near Radac	11042490	122	USGS	October 1989 to September 1994
Temecula Creek At Vail Dam	11042520	320	USGS	February 1923 to October 1977
Vail Lake Near Temecula (Reservoir Storage)	11042510	320	USGS	October 1948 to Present
Pechanga Creek Near Temecula	11042631	13.1	USGS	October 1987 to Present
Warm Springs Creek Near Murrieta	11042800	55.4	USGS	October 1987 to Present
Murrieta Creek Near Murrieta	11042700	30.0	USGS	October 1997 to Present
Santa Gertrudis Creek Near Temecula	11042900	90.2	USGS	October 1987 to Present
Murrieta Creek At Temecula	11043000	222	USGS	October 1924 to Present
Santa Margarita River Near Temecula	11044000	588	USGS	February 1923 to Present
Rainbow Creek Near Fallbrook	11044250	10.3	USGS	November 1989 to Present
Santa Margarita River At FPUD Sump	11044300	620	USGS	October 1989 to Present
Sandia Creek Near Fallbrook	11044350	21.1	USGS	October 1989 to Present
Santa Margarita River Tributary Near Fallbrook	11044600	0.52	USGS	October 1961 to September 1965
DeLuz Creek Near DeLuz	11044800	33.0	USGS	October 1992 to Present
DeLuz Creek Near Fallbrook 1/	11044900	47.5	USGS/ USMC	October 1951 to September 1967 October 1989 to September 1990 April 2002 to February 2003
Santa Margarita River Near DeLuz Station	11045000	705	USGS	October 1924 to September 1926
Fallbrook Creek Near Fallbrook 2/	11045300	6.97	USGS/ USMC	October 1993 to Present
Santa Margarita River At Ysidora 3/	11046000	723	USGS	February 1923 to Present
Santa Margarita River At Mouth Near Oceanside	11046050	739	USGS	October 1989 to October 2010 October 2017 to Present

1/ Recorded by USMC, CPEN October 1967 to 1977.
2/ Recorded by USMC, CPEN for October 1964 to September 1977 and October 1989 to September 1993.
3/ Station temporarily operated as SMR at USMC Diversion Dam near Ysidora (#11045050) from February 26, 1999 to September 27, 2001.

TABLE 3.2

SANTA MARGARITA RIVER WATERSHED
MEASURED SURFACE WATER FLOW
2022-23
Quantities in Acre Feet[1/]

GAGING STATION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	WY TOTAL	WY AVERAGE THROUGH 2023	YEARS OF RECORD THROUGH 2023
Temecula Creek Near Aguanga (11042400)	0	0	0	2,079	474	4,590	1,030	320	117	4	1	0	8,615	4,928 7/	66
Pechanga Creek Near Temecula 2/ (11042631)	0	0	0	208	0	556	22	0	0	0	4	0	790	380 7/	36
Warm Springs Creek Near Murrieta (11042800)	0	132	72	1,940	536	2,603	69	118	0	0	245	0	5,715	2,828 7/	36
Murrieta Creek Near Murrieta 3/, 4/ (11042700)	0	59	7	1,682	1,339	5,346	485	300	14	0	360	0	9,592	3,084 7/	26
Santa Gertrudis Creek Near Temecula (11042900)	0	119	91	923	347	954	0	21	0	0	291	0	2,746	2,337 7/	36
Murrieta Creek At Temecula (11043000)	10	962	312	9,347	3,056	11,802	447	566	5	3	2,059	7	28,576	10,373 7/	93
Santa Margarita River Near Temecula (11044000)	239	1,693	850	11,276	3,551	13,766	692	1,152	687	598	2,879	558	37,941	16,639 7/ 20,390	75 (1949-2023) 25 (1924-1948)
Rainbow Creek Near Fallbrook (11044250)	0	61	41	1,099	318	2,456	439	187	70	4	144	5	4,825	2,174 7/	33
Santa Margarita River At FPUD Sump (11044300)	309	2,109	1,252	15,278	4,107	21,110	2,609	2,406	1,298	1,028	3,004	733	55,241	27,713 7/	33
Sandia Creek Near Fallbrook (11044350)	52	165	202	2,486	818	3,969	1,740	1,013	528	287	383	300	11,943	5,986 7/	33
DeLuz Creek Near DeLuz (11044800)	0	0	0	5,876	985	9,239	1,564	549	138	0	126	4	18,481	6,918 7/	30
Fallbrook Creek Near Fallbrook (11045300)	0	2	5	622	136	1,019	93	77	37	51	295	143	2,481	973 7/ 1,462 6/	30 (1994-2023) 12 (1965-1976)
Santa Margarita River At Ysidora (11046000)	0	334	581	26,233	8,870	46,842	7,322	3,863	1,847	548	4,410	932	101,781	29,643 5/, 7/ 31,390	75 (1949-2023) 25 (1924-1948)

1/ Totals may not add due to rounding.
2/ In summer 2006, gaging location was moved upstream 0.4 miles from prior location to current location 100 feet upstream of MWD pipe crossing, 0.4 miles upstream of the Rainbow Canyon Road/Old Highway 395 Bridge.
3/ Previously published as Murrieta Creek at Tenaja Road.
4/ Continuous record stopped on February 22, 2005, due to bridge construction. Only discharge measurements were taken from February 2005 until September 2007.
5/ Includes record of two years at Santa Margarita River at USMC Diversion Dam near Ysidora station.
6/ Includes wastewater flows.
7/ Annual averages computed by Watermaster Office.

Total flows at four long-term stations, for 2021-22 and 2022-23, are compared with their averages in the tabulation below. Average flows for the Santa Margarita River (SMR) gaging stations near Temecula and near Ysidora are shown for two periods: before and after Vail Dam was constructed (1923 to 1948, and 1949 to 2023). Values displayed are in acre-feet (AF).

	TOTAL FLOW		AVERAGE FLOW	
	WY 2022 AF	WY 2023 AF	Through WY 2023 AF	
Temecula Creek Near Aguanga (11042400)	235	8,615	4,928	(1957-2023)
Murrieta Creek At Temecula (11043000)	4,026	28,576	10,373	(1925-2023)
Santa Margarita River Near Temecula (11044000)	8,134	37,941	16,639 20,390	(1949-2023) (1923-1948)
Santa Margarita River At Ysidora* (11046000)	9,576	101,781	29,643 31,390	(1949-2023) (1923-1948)

* At various locations

The foregoing tabulation indicates the flows for 2022-23 were above normal for the four stations. Flows for long-term stations on Temecula Creek near Aguanga, Murrieta Creek at Temecula, SMR near Temecula and SMR at Ysidora were 174.8%, 275.5%, 228.0%, and 343.4% of their long-term averages, respectively.

The SMR near Temecula station is of particular interest relative to discharge requirements specified in the Cooperative Water Resource Management Agreement (CWRMA) between CPEN and RCWD, as described in Section 11. The long-term time series for annual streamflow for SMR near Temecula is provided on Figure 3.1, showing the 2022-23 flows were approximately 466.4% of the flows for the prior year.

Figure 3.1

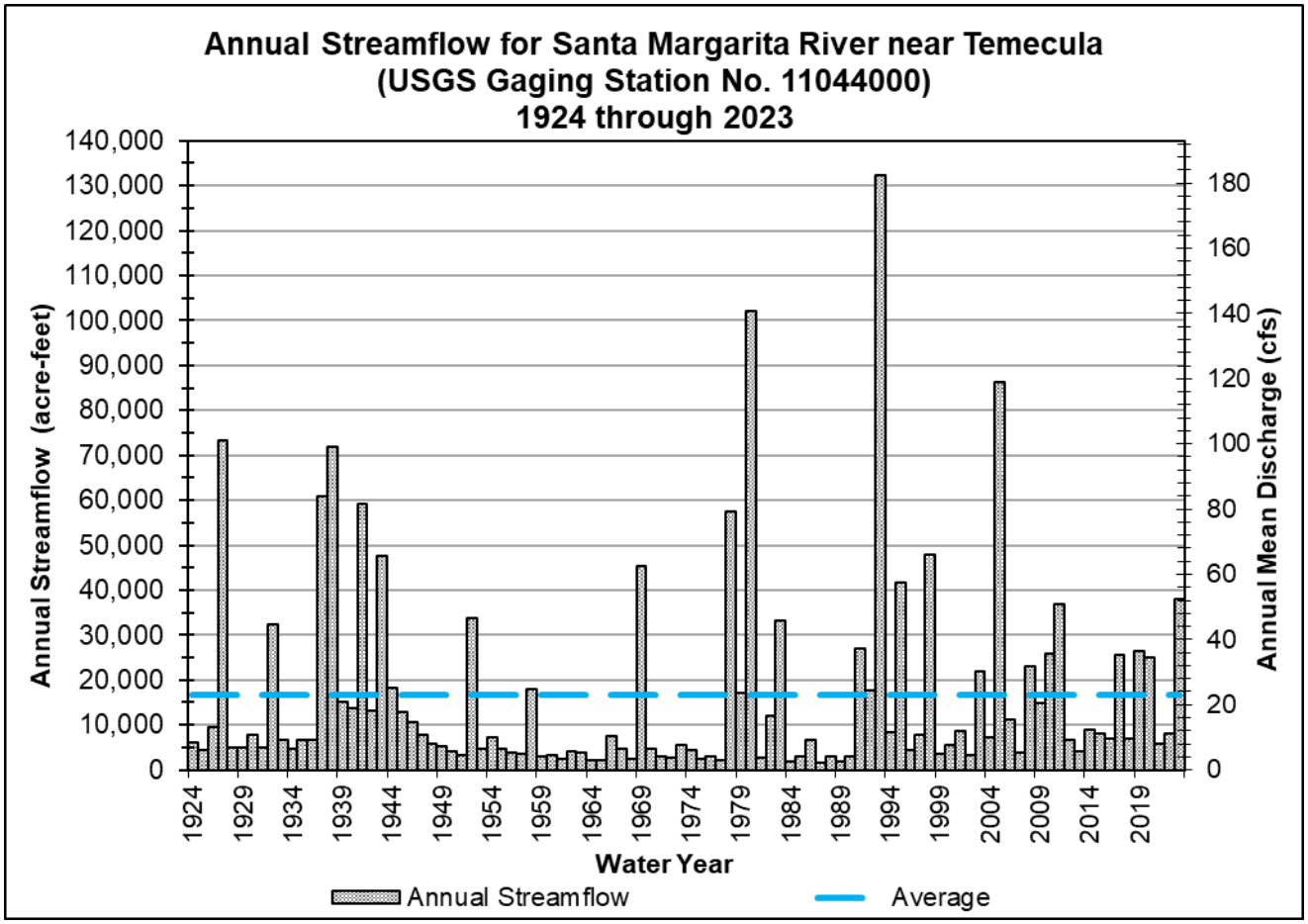
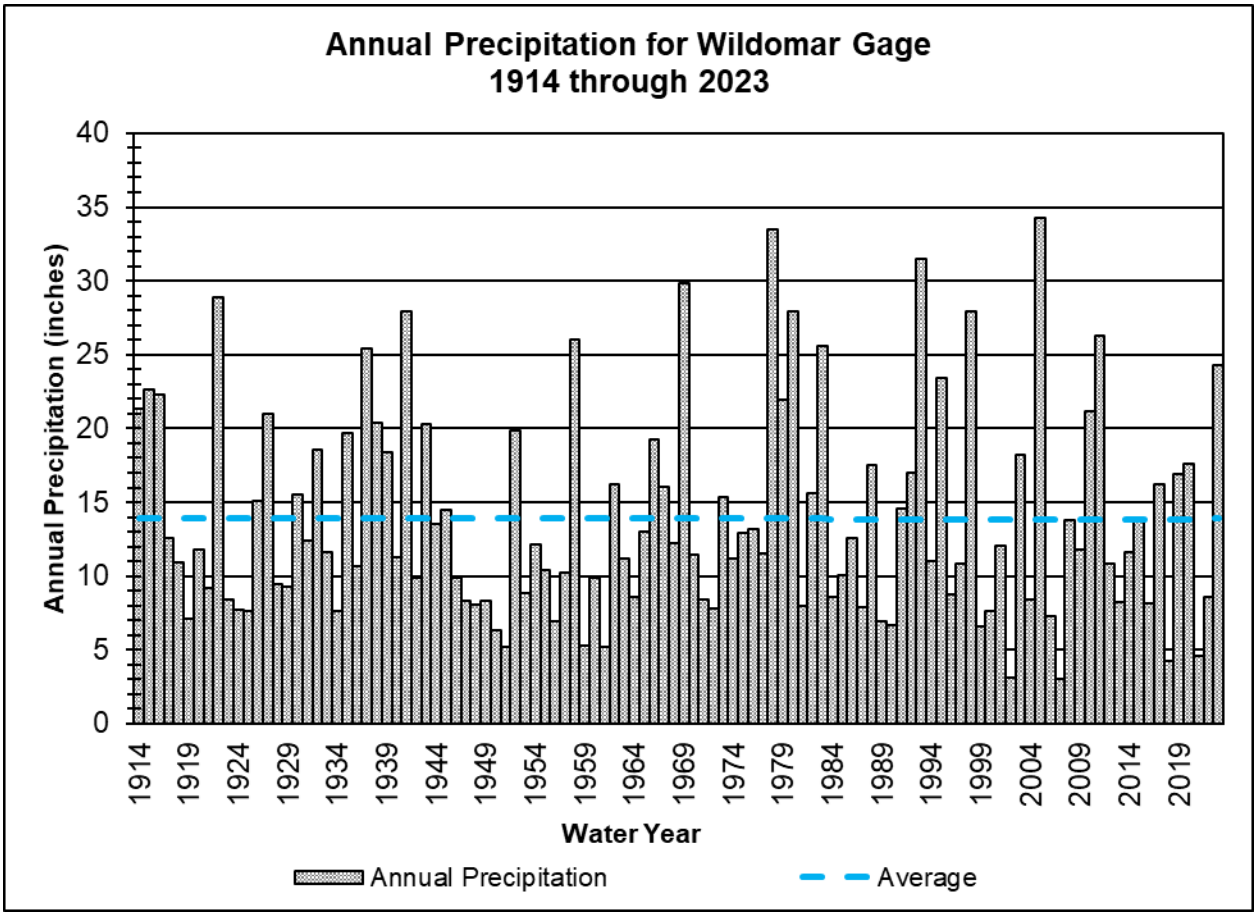


Figure 3.2 shows the long-term time series for annual precipitation for the Wildomar gage maintained by the Riverside County Flood Control and Water Conservation District. The Wildomar gage is specified in the CWRMA for determining hydrologic year types in establishing RCWD discharge requirements to meet flows for the SMR near Temecula. The long-term average precipitation for the Wildomar gage for the period 1914 through 2023 is 13.90 inches. The reported precipitation for 2022-23 is 24.29 inches, which is above the third quartile for the period of record.

Monthly flows shown on Table 3.2 consist primarily of naturally occurring surface runoff, including return flows, except for RCWD discharges into the SMR and some of its tributaries. Most of the RCWD discharges are pursuant to the CWRMA. During 2022-23, the total discharges from MWD Service Connection WR-34 into the SMR equaled 3,099 AF. The outlet from Service Connection WR-34 is located on the SMR immediately upstream of the Temecula gaging station. In 2009, RCWD extended a pipeline from its distribution system to discharge at the same location as the Service Connection WR-34. During 2022-23, there were a total of 790 AF of discharges from the potable connection to the SMR and there were no discharges to Murrieta Creek from the System River Meter.

Figure 3.2



During 2022-23, RCWD also released 6 AF from wells into Murrieta Creek, and 5 AF from wells into Temecula Creek.

3.2 Surface Water Diversions

Surface diversions to surface water storage and groundwater storage are shown on Table 3.3 for Vail Lake and Table 3.4 for Lake O'Neill. In general, diversions to surface storage at Vail Lake and Lake O'Neill are computed as being equal to inflow less spill, however, diversion to surface storage at Vail Lake excludes inflow during the period from May 1 through October 31 when Permit 7032 does not allow such diversions. Inflow to Vail Lake is calculated as the sum of evaporation, spill, releases and change of storage. Inflow into Vail Lake during the period when diversions are not permitted is released and not credited to groundwater storage.

Direct surface diversions for 2022-23 are shown on Table 3.5. The use is primarily irrigation. Estimated consumptive uses, losses and returns are also shown.

3.3 Water Storage

Major water storage facilities in the SMRW are listed on Table 3.6, together with the water in storage on September 30, 2022 and September 30, 2023. Total SMR stream system water in storage at the end of 2022-23 totaled 16,019 AF, compared to 8,370 AF at the end of the previous year. Imported water in storage in Lake Skinner and Diamond Valley Lake is shown on Table 3.6.

TABLE 3.3

SANTA MARGARITA RIVER WATERSHED
SURFACE WATER DIVERSIONS TO STORAGE FOR VAIL LAKE
2022-23
Quantities in Acre Feet

	Surface Water Storage		
	2020-21	**2021-22**	**2022-23**
Storage End of Prior Year	12,350	10,050	8,001
Inflow - Total	1,384	983	10,794
Inflow to be Bypassed[1/]	440	437	805
Spill	0	0	0
Diversions to Surface Storage[2/]	944	546	9,989
Annual Evaporation	3,096	2,533	2,688
Releases - Total	588	498	946
Release to GW Storage[3/, 4/]	148	61	142
Change of Storage	(2,300)	(2,049)	7,159
Storage End of Year	10,050	8,001	15,160
	Groundwater Storage		
Recharge Release from Vail Lake	148	61	142
Recovered Vail Lake Recharge Water from GW Storage[5/]	148	61	142

Data reported by RCWD except end of year storage reported by USGS.

1/ Inflow to be bypassed Oct 1 through Oct 31 and May 1 through Sept 30.

2/ Inflow less Spill less Inflow to be Bypassed.

3/ Total Release less Inflow to be Bypassed.

4/ Vail Lake operations shown in Table 3.3 reflect water year operations to be consistent with reporting in the Annual Watermaster Report. However, Permit 7032 specifies calendar year reporting and a continuous operating season of May through October for bypasses overlapping two water years. The value of 142 AF for Release to GW Storage is correct but misleading because the bypass season continues into October 2023. Inspection of RCWD records for May through October 2023 shows total Inflow to be bypassed in the amount of 503 AF with Total Releases of 837 AF, resulting in 335 AF release excess during the Permit bypass season of May through October 2023.

5/ See Table 7.4.

TABLE 3.4

SANTA MARGARITA RIVER WATERSHED
SURFACE WATER DIVERSIONS TO STORAGE FOR LAKE O'NEILL
2022-23
Quantities in Acre Feet

	Surface Water Storage		
	2020-21	**2021-22**	**2022-23**
Storage End of Prior Year	1,080	502	369
Inflow - Total	1,964 1/	2,564 2/	5,522 3/
Spill	47 7/	116 7/	360
Diversions to Surface Storage	1,917 4/	2,448 4/	5,162 4/
Annual Evaporation	406	397	336
Releases - Total	1,253	1,222	2,916
Release to GW Storage	1,253	1,222	2,916
Apparent Seepage to GW	838 5/	965 5/	1,417 5/
Change of Storage	(579)	(135)	490
Storage End of Year	502	369 R	859
	Groundwater Storage		
Recharge Release from Lake O'Neill	2,091 6/	2,187 6/	4,333 6/
Deliveries to Recharge Ponds	2,993	1,885	5,861
Indirect Recharge	2	0	455
TOTAL	5,086	4,072	10,650

1/ 1,301 AF diverted from the Santa Margarita River, 169 AF from Fallbrook Creek, 426 AF from local runoff, and 69 AF from rainfall on lake surface.
2/ 1,388 AF diverted from the Santa Margarita River, 707 AF from Fallbrook Creek, 372 AF from local runoff, and 98 AF from rainfall on lake surface.
3/ 1,306 AF diverted from the Santa Margarita River, 2,480 AF from Fallbrook Creek, 1,462 AF from local runoff, and 273 AF from rainfall on lake surface (rounded).
4/ Inflow less Spill.
5/ Includes seepage losses, leakage through flashboards and gates, and unaccounted for water.
6/ Includes Release to GW Storage and Apparent Seepage to GW from Lake O'Neill.
R - Revised

TABLE 3.5

SANTA MARGARITA RIVER WATERSHED
SURFACE WATER DIVERSIONS TO USE
2022-23
Quantities in Acre Feet

DIVERTER	Surface Diversions	Consumptive Use 1/	Loss 2/	Return 3/
James Carter	45.0	33.2	4.5	7.3
Chambers Family, LLC	8.0	5.9	0.8	1.3
Sage Ranch Nursery	100.0	73.8	10.0	16.2
Wilson Creek Development, LLC	320.0	236.2	32.0	51.8
Cahuilla Indian Reservation	17.9	13.2	1.8	2.9
Alfred Varella Sr. Family Living Trust	12.9	9.5	1.3	2.1
San Diego State University	6.7	4.9	0.7	1.1
TOTAL	510.5	376.7	51.1	82.7

1/ Consumptive Use equals 82% of Diversions less Losses.
2/ Losses equal 10% of Diversions.
3/ Returns equal 18% of Diversions less Losses.
4/ Water Use Report for current year not received. Values taken from last year reported.

TABLE 3.6

SANTA MARGARITA RIVER WATERSHED
SURFACE WATER IN STORAGE
2022-23
Quantities in Acre Feet

Santa Margarita River Storage	Total Capacity 1/	Water in Storage 9/30/2022	Water in Storage 9/30/2023
Dunn Ranch Dam	90	0	0
Upper Chihuahua Creek Reservoir	47	0	0
Vail Lake	49,370	8,001	15,160
Lake O'Neill 2/	1,497	369 R	859
SUBTOTAL	**51,004**	**8,370**	**16,019**
Imported Water Storage			
Lake Skinner	38,897	35,999	38,220
Diamond Valley Lake	708,423	508,986	672,091
SUBTOTAL	**747,320**	**544,985**	**710,311**
TOTAL STORAGE	**798,324**	**553,355**	**726,330**

1/ Capacity shown is current capacity reported by owner. Original capacity or decreed capacity may not be reflected in this table.
2/ Capacity revised in WY 2021 based on updated bathymetry.
R - Revised

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SECTION 4 - SUBSURFACE WATER AVAILABILITY

4.1 General

Much of the water from the SMR stream system is obtained by pumping subsurface water. The Court has identified two basic types of subsurface water in the interlocutory judgments incorporated into the 1966 Modified Final Judgment and Decree. One type is vagrant, local, percolating waters that do not add to, support or contribute to the SMR or its tributaries. Such waters have been determined to be outside the continuing jurisdiction of the Court. These waters are typically found in the basement complex and/or residuum deposits in the Watershed.

Other subsurface waters were found by the Court to add to, support and contribute to the SMR and its tributaries. Aquifers containing such waters have been designated by the Court as younger alluvium and older alluvium. Younger alluvial deposits are commonly exposed along streams and in valleys. Older alluvium may be found underneath younger alluvium and is not limited to areas along stream channels. Older alluvium may or may not be exposed at ground surface. The use of subsurface water found in younger and older alluvium is generally under the continuing jurisdiction of the Court and is reported herein.

4.2 Extractions

Total production of SMR water by substantial water users in the Watershed from all sources is listed on Table 4.1 by hydrologic area, along with estimated consumptive use and return flows. Recovery of imported water that has been directly recharged is not included on Table 4.1. Substantial water users include water purveyors as well as private irrigators who irrigate eight acres or more or use an equivalent quantity of water.

In 2022-23, production by water purveyors totaled 25,461 AF, compared to 23,676 AF in 2021-22. Monthly quantities are shown in Appendix A and annual production for the period 1966 through 2023 is shown in Appendix B.

The quantities of subsurface extractions by private irrigators are based on the irrigated acreage and the crop type, with estimates by the Watermaster noted in Appendix C. These quantities are reported in Appendix C to total 3,817 AF in 2022-23. Of the subsurface extractions, 82% are estimated to have been consumptively used and 18% to have been return flow. Return flow is that portion of the total deliveries that is not consumed. Although return flows average about 18%, such flows are affected with the type of use (domestic, commercial and irrigation), the type of irrigation application (drip, micro-sprinkler, furrow), and exports from watersheds.

TABLE 4.1

SANTA MARGARITA RIVER WATERSHED

SANTA MARGARITA RIVER WATER PRODUCTION BY SUBSTANTIAL USERS[1/]

2022-23

HYDROLOGIC AREA	WATER PURVEYOR PRODUCTION ACRE FEET	OTHER IRRIGATED ACRES*	OTHER IRRIGATION PRODUCTION ACRE FEET*	TOTAL GROUNDWATER PRODUCTION ACRE FEET	SURFACE WATER DIVERSIONS ACRE FEET*	TOTAL PRODUCTION ACRE FEET	ESTIMATED CONSUMPTIVE USE ACRE FEET 2/, 3/	ESTIMATED RETURN FLOW ACRE FEET 3/
Wilson Creek	439	169 [4/]	112	551	18	569	465	104
Above Aguanga GWA Includes Anza Valley	*(Lake Riverside, Anza MWC, Cahuilla, Ramona, Hamilton Schools)*							
Temecula Creek	16	248	781	797	0	797	654	144
Above Aguanga GWA	*(Quiet Oaks MHP)*							
Aguanga GWA	238	857	1,587	1,825	365	2,190	1,766	424
	(Outdoor Resorts, Jojoba Hills Cottonwood Elementary)							
Upper Murrieta Creek (Warm Springs Creek above 7S/3W-14)	0	0	0	0	0	0	0	0
Lower Murrieta Creek (Santa Gertrudis/Tucalota Creek above 7S/2W-18 -- Includes FPUD Diversion from Lake Skinner)	0	310	44	44	100	144	109	34
Murrieta-Temecula GWA	16,235	495	778	17,013	142	17,155	14,056	3,100
	*(RCWD**, WMWD (Murrieta Division), EMWD, and Pechanga)*							
Santa Margarita River Below the Gorge								
DeLuz Creek	0	236	369	369	21	390	318	72
Sandia Creek	0	69	139	139	0	139	114	25
Rainbow Creek	0	0	0	0	0	0	0	0
Santa Margarita River	8,533 [6/]	21	7	8,540	7	8,546	1,966	432
	(CPEN, including CUP to FPUD)							
TOTAL	**25,461**	**2,405**	**3,817**	**29,278**	**652** [5/]	**29,930**	**19,448**	**4,334**

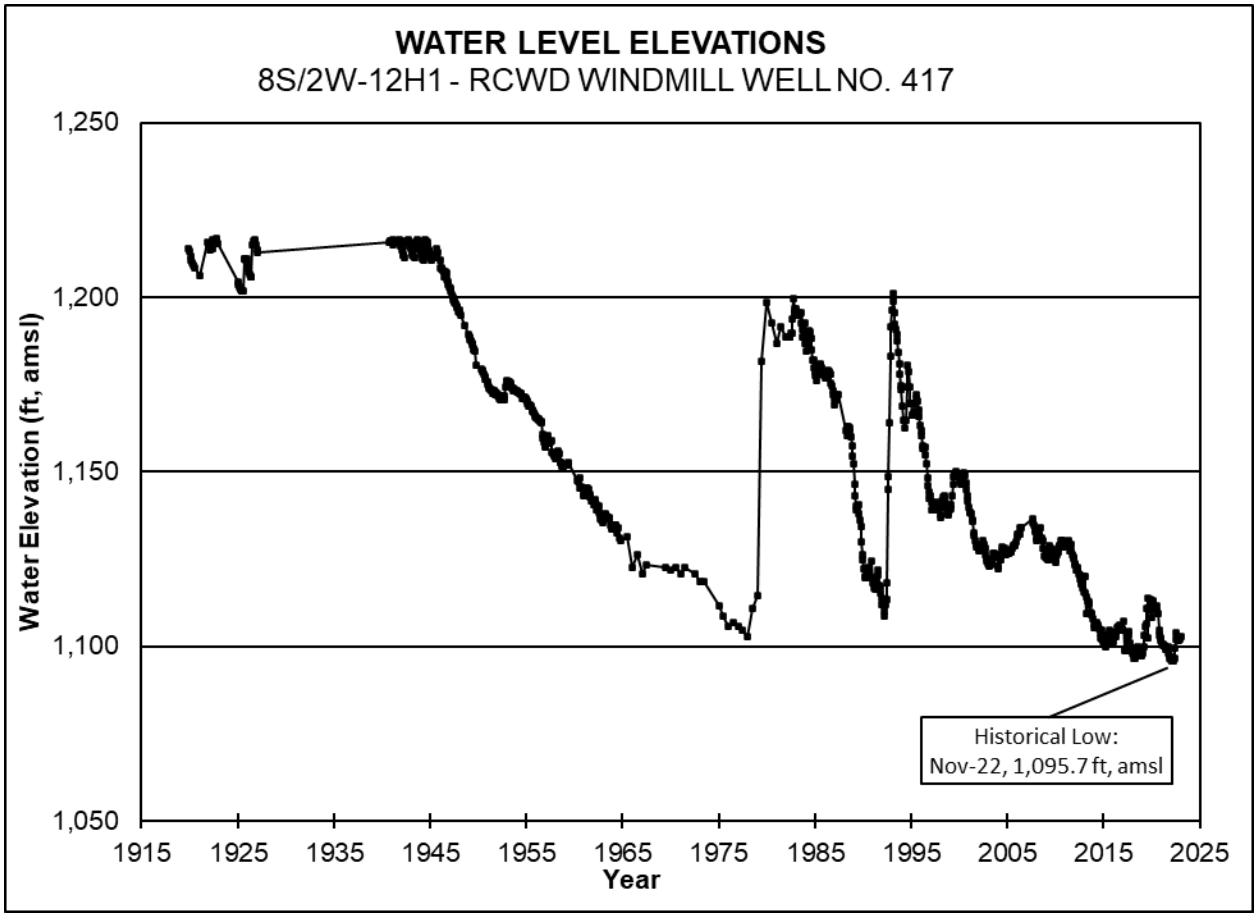
1/ Totals may not add due to rounding.
2/ Estimated consumptive use is equal to 82% of Total Groundwater Production plus 82% of Surface Diversions less 10% [CU = .82(GW + .90 * SW)].
3/ CPEN consumptive use and return flow calculated for portion of production used within SMRW. Portion of production used within SMRW for WY 2023 equals 2,384 AF.
4/ Includes lands overlying deep aquifer in Anza Valley.
5/ Includes surface water diversion for irrigation, commercial and domestic use.
6/ Includes 6,482 AF of Camp Supply plus 2,520 AF (rounded) of CUP deliveries to FPUD minus 469 AF of SMR Native Export (see Table A-3).
* From Appendix C except for the Lower Murrieta Creek and the Murrieta-Temecula GWA which includes surface water appropriations from Lake Skinner and Vail Lake.
** RCWD pumped an additional 136 AF that was exported to the San Mateo Watershed.

4.3 Water Levels

Water levels in selected wells in the Watershed are measured periodically by various entities. Historical water levels in wells at various locations in the Watershed are shown on Figures 4.1 through 4.7.

Figure 4.1 shows water levels in Well No. 8S/2W-12H1 (Windmill Well) located in the RCWD service area downstream from Vail Lake. Note the extended drawdown from 1945 to 1978, the major recoveries during the wet years in 1980 and 1993, and the effect of relatively dry years after 1980 and after 1993. Water levels increased by 6.7 feet between September 30, 2022 and September 30, 2023. The Windmill Well is located in Pauba Valley about 1.5 miles downslope from the Valle de los Caballos recharge area (VDC), where releases from Vail Lake as well as imported water are recharged. In 2022-23, 14,528 AF of imported water were recharged in the VDC of which 100% was recovered in the same year. A total of 1,748 AF of previously recharged import water was recovered from groundwater storage in 2022-23.

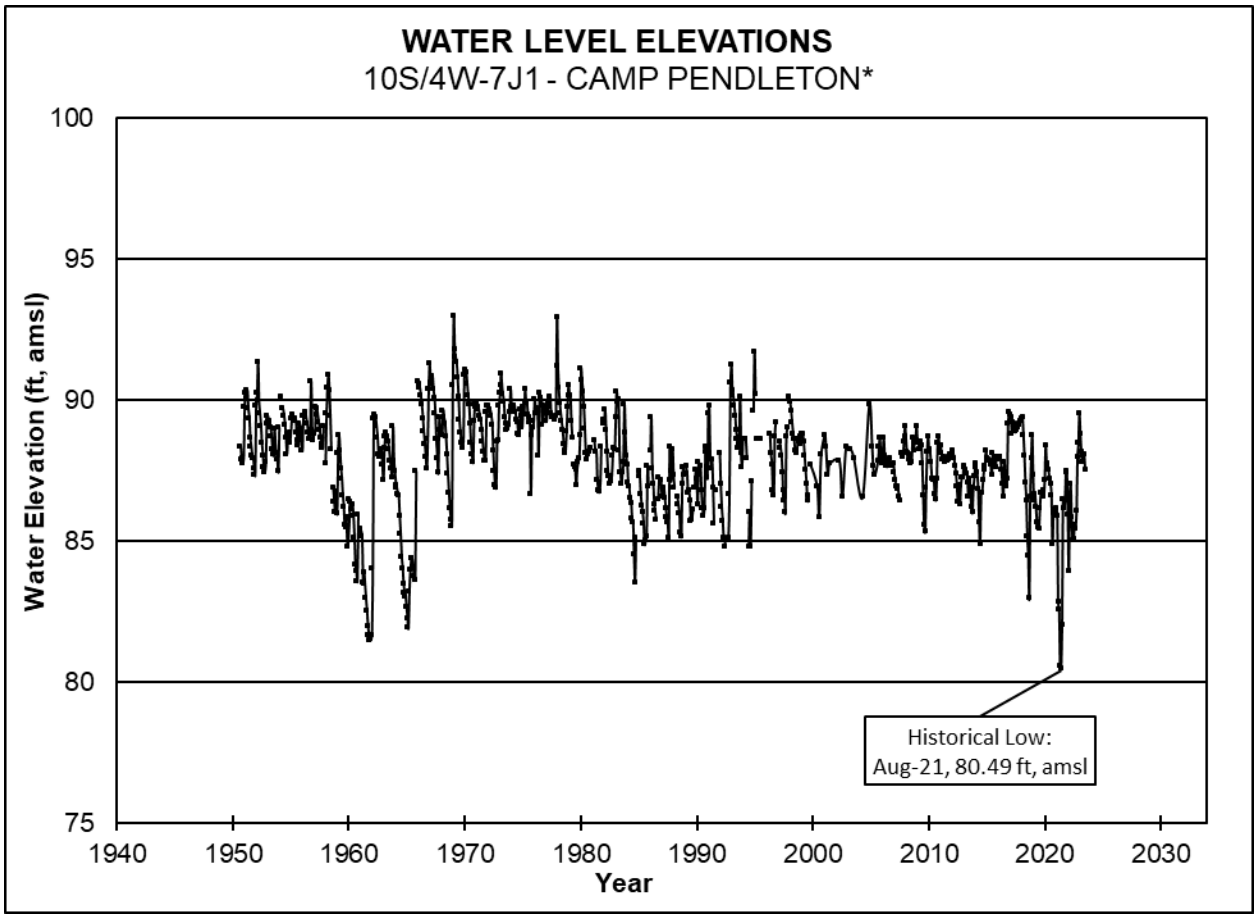
Figure 4.1



Collar El. 1,216.7 Feet; Depth 515 Feet; Drilled in Alluvium
RCWD reports (1920-2023)

Figure 4.2 shows water levels at CPEN in Well No. 10S/4W-7J1, a monitoring well located in the Upper Sub-basin. Fluctuations in recent years illustrate recharge during the winter months and drawdown each summer, with the water levels ranging from approximately 79 to 91 feet in elevation. Water levels in Well 7J1 increased 2.5 feet in the period between September 2022 and September 2023.

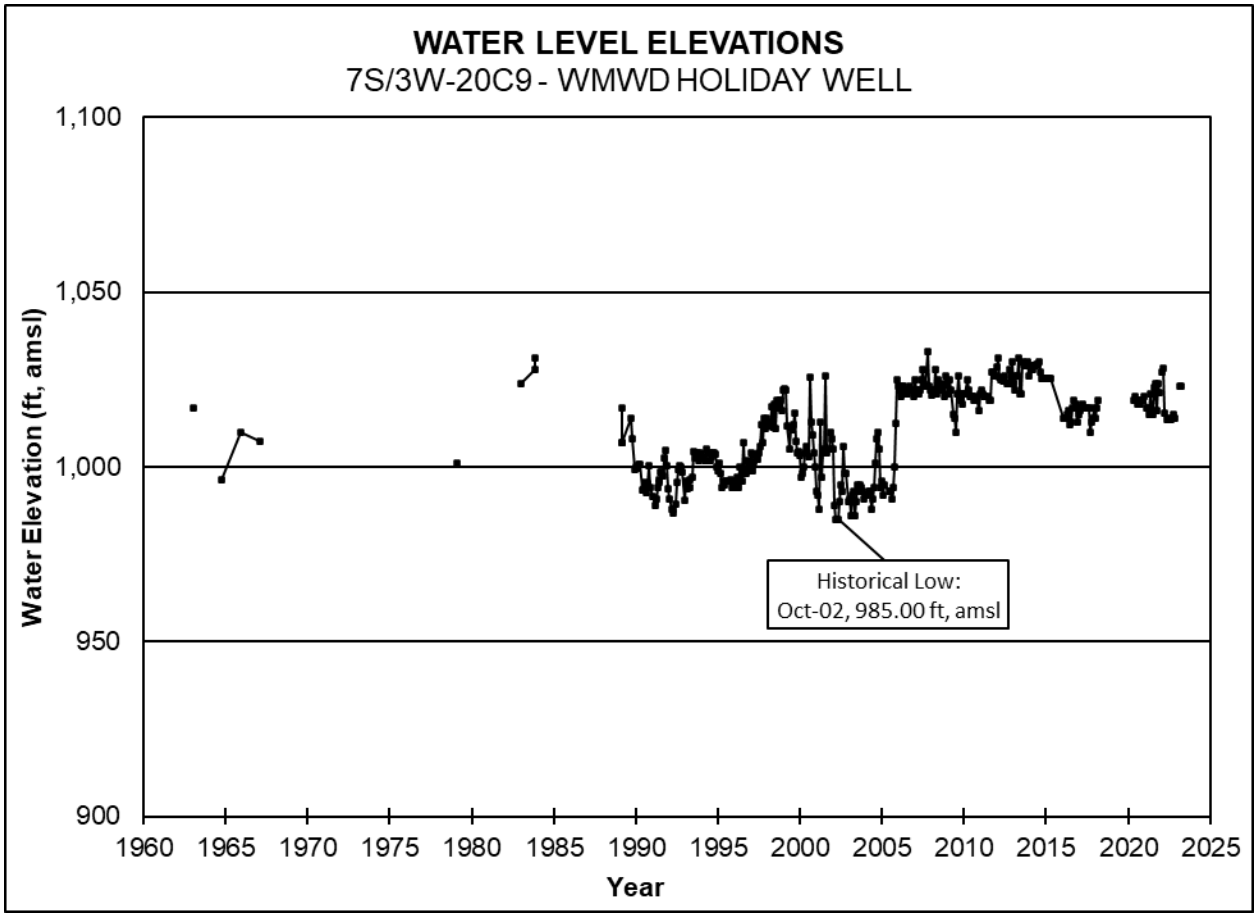
Figure 4.2



Ground El. 93.8 Feet; Depth 141 Feet; Perf. Unknown; Drilled in Alluvium
CPEN
*Data shown for Well No. 10S/4W-7J1 except for period October 1999 through September 2007 data shown for Well No. 10S/4W-7J4.

Figure 4.3 shows water levels from Holiday Well No. 7S/3W-20C9 in the Murrieta Division service area of WMWD. The Holiday Well was used as a production well until February 2006, but now is used only as a monitoring well. Water levels increased 7.5 feet during 2022-23.

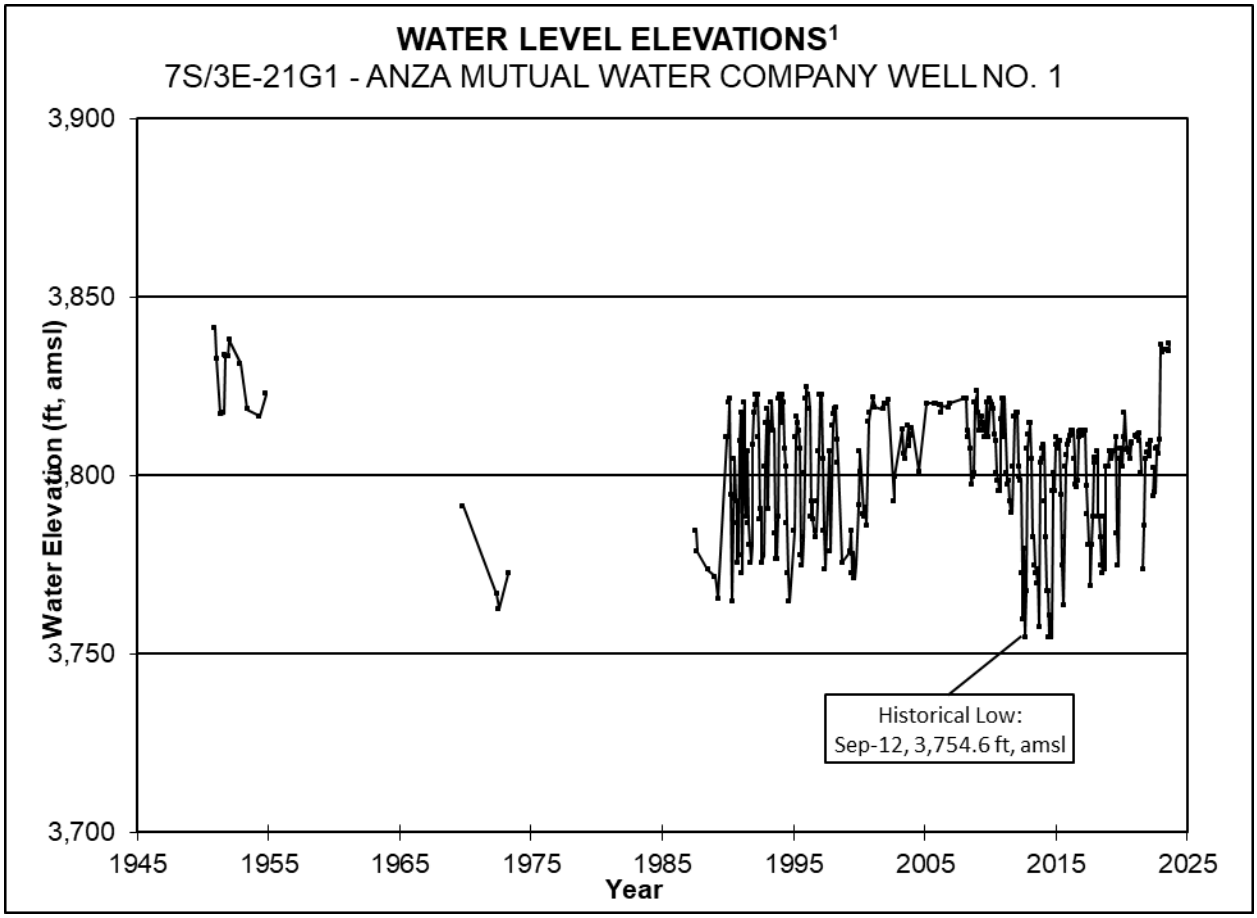
Figure 4.3



Ground El. 1,090 Feet; Depth 307 Feet; Perf. 60 - 307 Feet
WMWD

Figure 4.4 shows water levels for Well No. 7S/3E-21G1, Anza Mutual Water Company Well No. 1, a production well located in the Anza Valley. Water levels in this well increased by 29.6 feet between September 30, 2022 and September 30, 2023. As may be noted from Figure 4.4, recent measurements show annual 50-foot fluctuations in groundwater levels at this well, partly in response to the operation of nearby irrigation wells.

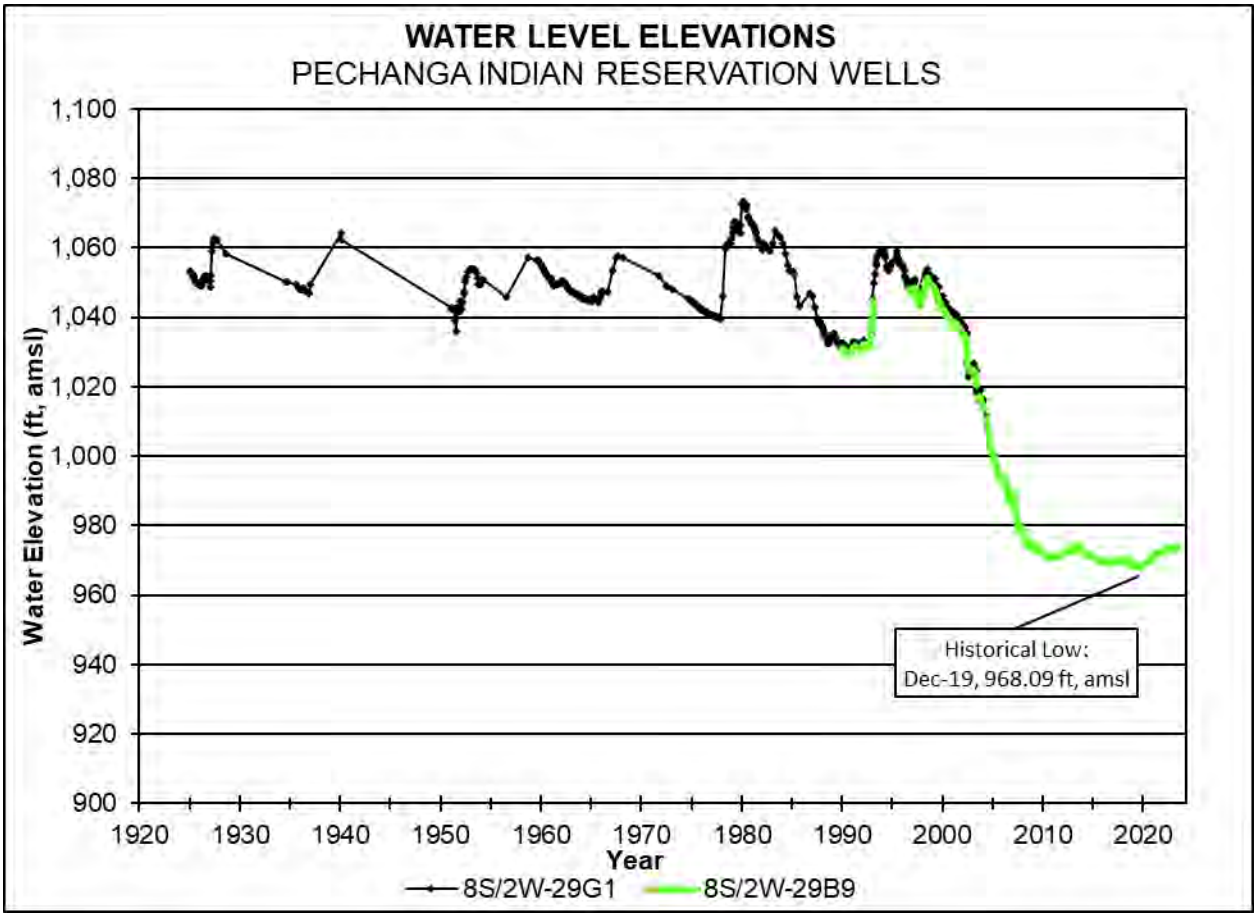
Figure 4.4



[1]Combination of static and pumping water levels
Ground El. 3,862.6 Feet; Depth 260 Feet; Perf. 20 - 260 Feet; Drilled in Alluvium
Anza Mutual Water Co. Well No. 1 (1987-2023); DWR Bulletin 91-22 (1950-73)

Figure 4.5 shows water levels at Well No. 8S/2W-29G1, located in Wolf Valley on the Kelsey Tract of the Pechanga Indian Reservation. The well is not used for water production. Water levels collected since 1925 reflect unconfined groundwater levels. As shown on Figure 4.5, the groundwater levels have fluctuated within an approximate 40-foot range above and below elevation 1,050 feet in response to wet years and dry periods until recently. In November 2004, this well went dry due to the preceding relatively dry hydrological conditions and pumping of the nearby New Kelsey Well on the Pechanga Reservation. To continue to monitor water levels on the Pechanga Indian Reservation, water levels for Well No. 8S/2W-29B9 are also shown on Figure 4.5. Well No. 8S/2W-29B9 is completed in the younger alluvium. As shown on Figure 4.5, water levels for Well No. 8S/2W-29B9 coincide with water levels for the common period of record with Well No. 8S/2W-29G1. Water levels in Well 8S/2W-29B9 increased by 0.4 feet between September 1, 2022 and September 1, 2023.

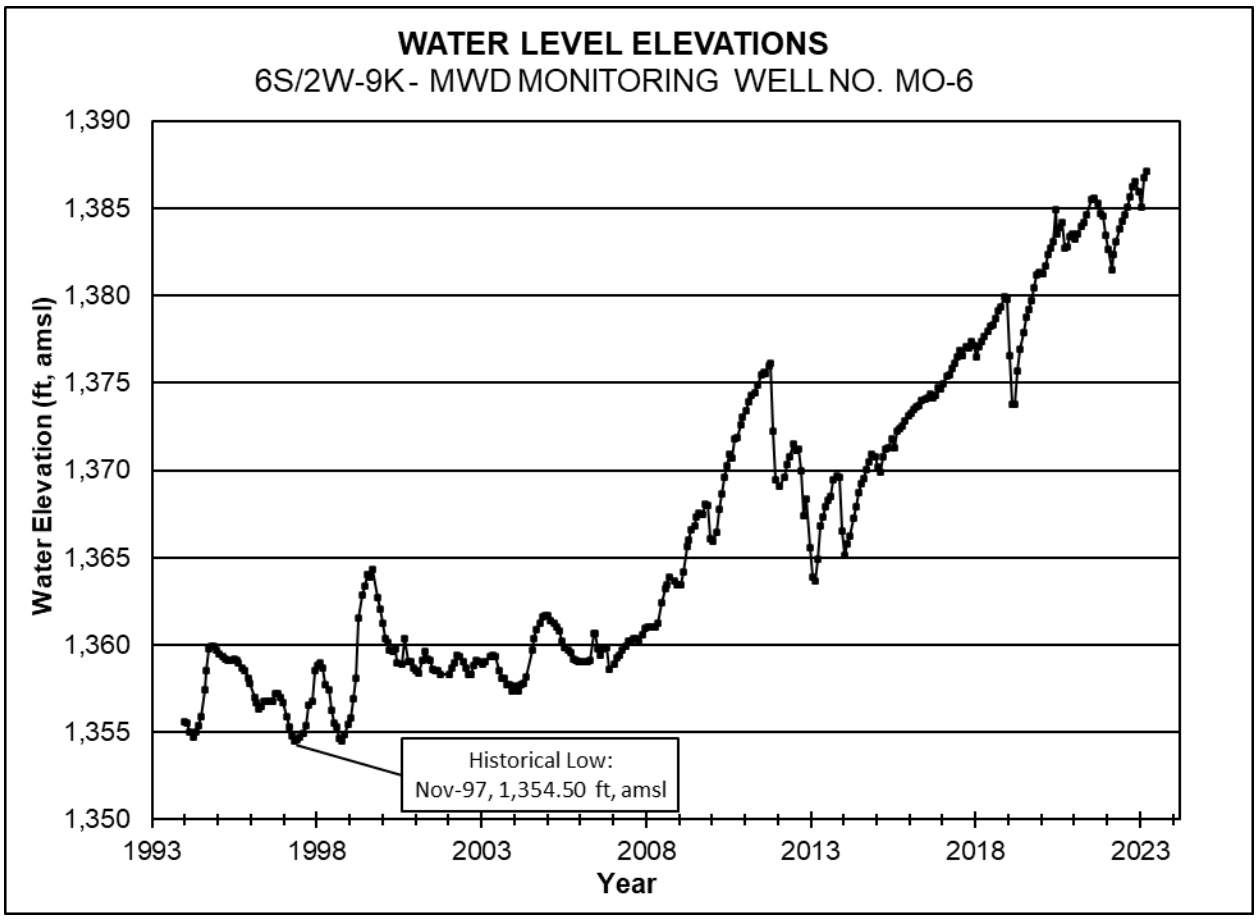
Figure 4.5



8S/2W-29G1: Ground El. 1,091.1 Feet; Depth 159.1 Feet
8S/2W-29B9: Ground El. 1,075.93 Feet; Depth 113.0 Feet
U.S. Geological Survey Records

Figure 4.6 shows water levels for Well No. 6S/2W-9K, MWD Monitoring Well No. MO-6, located in the Domenigoni Valley. Water levels in this well increased by 4.8 feet between October 4, 2022 and October 3, 2023.

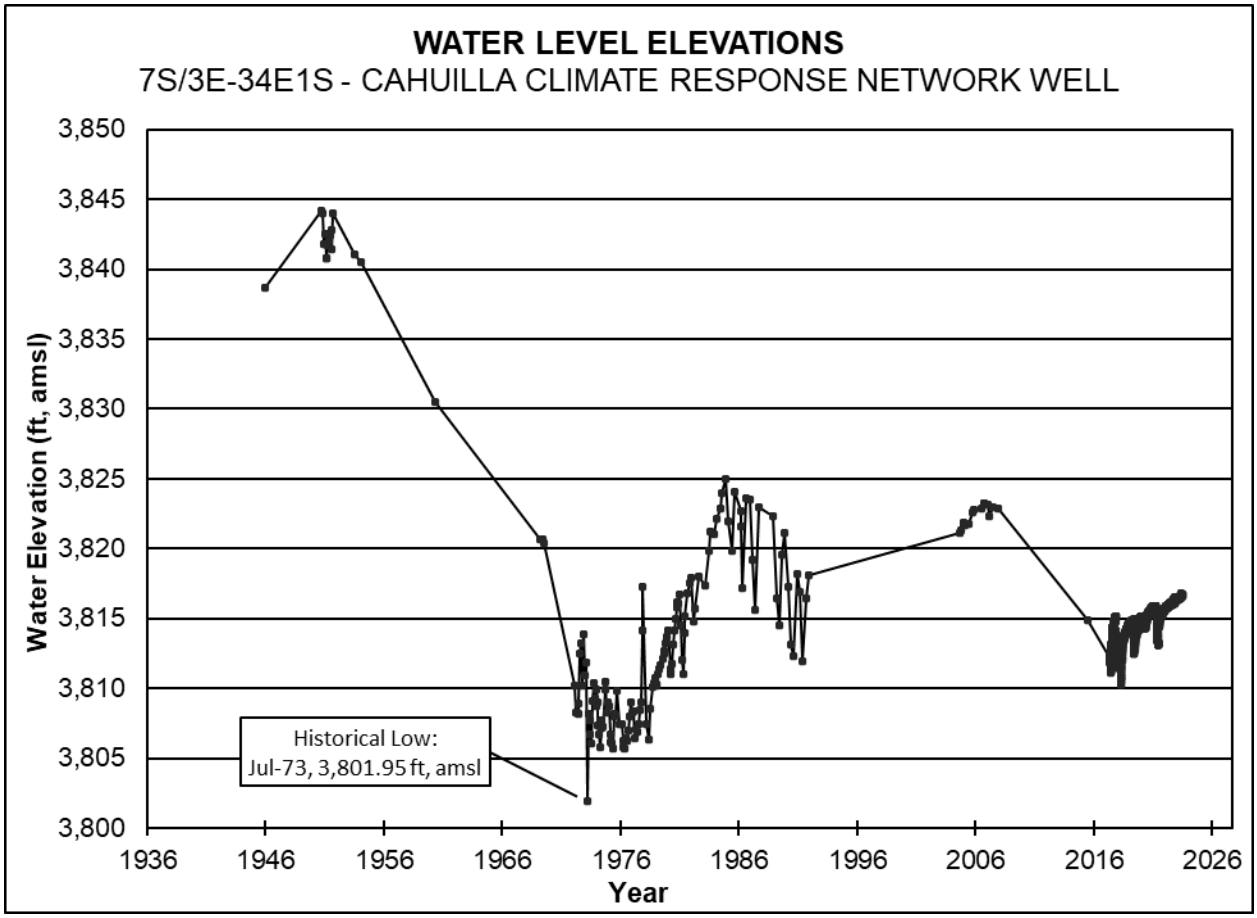
Figure 4.6



Ground El. 1,445.8 Feet; Depth 115 Feet; Perf. 30.5 - 110 Feet; Drilled in Alluvium
MWD

Figure 4.7 displays the historical record for the USGS/Cahuilla Climate Response Network Well No. 7S/3E-34E1S, dating back to 1946. The USGS established the existing well as a Climate Response Network well and automated water level measurements commenced at a 15-minute interval on August 31, 2017. As shown on Figure 4.7, water levels for the well increased by 0.6 feet between September 30, 2022, and September 30, 2023.

Figure 4.7



7S/3E-34E1S: Ground El. 3,878.70 Feet above NAVD88; Depth 182 Feet
USGS Records

Changes in water levels in the above noted wells between the end of the previous water year and the end of 2022-23 are shown below:

Well	Water Elevation WY 2022 Feet	Water Elevation WY 2023 Feet	Change in Water Level Feet***	
RCWD 8S/2W-12H1	1,096.2	1,102.9	Up	6.7
CPEN 10S/4W-7J1	85.1	87.5	Up	2.5
WMWD 7S/3W-20C9	1,015.5	1,023.0	Up	7.5
Anza MWC 7S/3E-21G1	3,807.4	3,836.9	Up	29.6
Pechanga IR 8S/2W-29B9	973.6	*974.0	Up	0.4
MWD 6S/2W-9K	1,382.4	1,387.2	Up	4.8
Cahuilla/USGS 7S/3E-34E1S	**3,816.1	3,816.7	Up	0.6

*Water level measurement taken 9/1/2023.
**The site elevation was resurveyed in October 2023. Consequently, water level elevation measurements taken prior to October 2023 were updated.
***May not add due to rounding.

4.4 Groundwater Storage

Bulletin 118 Update 2003 prepared by the California Department of Water Resources (DWR) describes three groundwater basins that are located entirely within the SMRW: Santa Margarita Valley, Temecula Valley, and Coahuila (Cahuilla) Valley. These basins are also known as the Santa Margarita Groundwater Basin, the Murrieta-Temecula Groundwater Basin, and the Anza Groundwater Basin. A fourth groundwater basin identified in Bulletin 118, the San Jacinto Groundwater Basin, is partially located within the Watershed. The portion of the San Jacinto Groundwater Basin located within the Watershed is known as the Domenigoni Sub-basin.

4.4.1 Santa Margarita Groundwater Basin

The Santa Margarita Groundwater Basin is located along the SMR at CPEN and includes three sub-basins: Upper, Chappo, and Ysidora. Useable groundwater storage in place is summarized on Table 4.2 and change in useable groundwater storage is summarized on Table 4.3. Table 4.2 shows the total combined storage for all the sub-basins between the depths of 5 and 100 feet is 48,100 AF. However, much of that storage is below sea level. Thus, the useable capacity is considered to be 28,700 AF as shown on Table 4.2. It may be noted that classification of storage as useable is made without allowances for maintenance of riparian habitat.

Beginning in 2017, annual change in groundwater storage is computed using two methods: Watermaster Office method, and Groundwater Level Polygon method. Both methods use the average September groundwater levels (end of water year) to calculate the change in storage as well as specific yield for the sub-basins published by Worts and Boss (1954).

The Watermaster Office method uses average groundwater levels from one well located in each of the three sub-basins (Upper, Chappo, and Ysidora), along with the specific yield and sub-basin acreage, to determine the change in usable groundwater storage. In 2022-23, useable groundwater storage in place was computed for all three sub-basins to be 27,941 AF. The useable storage in place for the three sub-basins amounted to 24,272 AF in 2021-22. Thus, using the Watermaster Office method, there was an increase in groundwater storage in place of approximately 3,670 AF for 2022-23. Results are displayed in Table 4.2.

The Groundwater Level Polygon method uses average groundwater levels from fifteen key wells located throughout the sub-basins, along with specific yield and sub-basin acreage to determine the change in usable groundwater storage. It should be noted, the sub-basin acreage used in the Groundwater Level Polygon method differs when compared to the acreage used for the Watermaster Office method. For 2022-23, the Groundwater Level Polygon method indicated a decrease of available groundwater amounting to approximately 3,546 AF for all three sub-basins. Results for WYs 2019 through 2023 are displayed in Table 4.3.

TABLE 4.2

SANTA MARGARITA RIVER WATERSHED
GROUNDWATER STORAGE - SANTA MARGARITA GROUNDWATER BASIN
Watermaster Office Method
2022-23
Quantities in Acre Feet

	Sub-basin			
I. Available Storage	Upper	Chappo	Ysidora	Total
A. Total Storage [1/]	12,500	27,000	8,600	48,100
B. Useable Storage	12,500	15,000 [2/]	1,200 [3/]	28,700
II. Unused Storage				
A. Wells used for Depth	10S/4W-7J1	10S/4W-18L1 [4/]	11S/5W-11D4	
B. Land Surface Elevation - Feet [5/]	93.8	75.9	18.8	----
C. End of Water Year Water Level - Feet	87.5	70.6	8.9	----
D. Depth to Water - Feet [6/]	6.3	5.2	9.9	----
E. Depth below 5 Feet	1.3	0.2	4.9	----
F. Average Area - Acres [7/]	840	2,500	1,060	----
G. Specific Yield [8/]	0.216	0.130	0.090	----
H. Unused Storage below 5 Feet	227	68	464	759
III. Useable Storage in Place [9/]	12,273	14,932	736	27,941
IV. Useable Storage in Place 2021-22	11,831	11,822	619	24,272
V. Change in Storage 2022-23	442	3,110	117	3,670

1/ Computed by USGS (Worts, F. C., Jr. and Boss, R. F., *Geology and Ground-Water Resources of Camp Pendleton, CA, July 1954)* as the storage between depths of 5 and 100 feet.
2/ Storage between 5 foot depth and sea level.
3/ Storage between 5 foot depth and 10 feet above sea level.
4/ Well 10S/4W-18L1 was destroyed during 2012, depth to water extrapolated from measurements for Well 10S/5W-13G1.
5/ Reported by CPEN based on NAVD88 datum.
6/ Reported by CPEN as average values for month of September unless noted otherwise.
7/ Average area estimated over depth interval for unused storage.
8/ From Worts and Boss for depth interval of 5 to 50 feet.
9/ Useable storage includes stored water reserved for riparian habitat; however specific amount stored for such purposes not delineated.

TABLE 4.3

SANTA MARGARITA RIVER WATERSHED
CHANGES IN USABLE GROUNDWATER IN STORAGE
SANTA MARGARITA RIVER GROUNDWATER BASIN
Groundwater Level Polygon Method

Sub-area	Key Aquifer	Specific Yield/ Storativity	Key Well		LSD ft, msl	Aquifer Area Acres	Water Depth at End of Water Year Feet					Change in Depth Feet					Change in Storage in Water Year Acre Feet				
							2019	2020	2021	2022	2023	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
1	Upper	0.216	5E3		120.5	186	15.5	14.6	17.6	16.0	16.5	6.1	0.8	(3.0)	1.6	(0.5)	246	33	(118)	64	(21)
2	Upper	0.216	8D5		109.0	81	12.7	11.4	14.7	18.3	13.0	4.3	1.3	(3.3)	(3.6)	5.4	75	22	(57)	(64)	94
3	Upper	0.216	8D4		104.3	92	12.6	11.5	14.6	18.1	14.3	3.4	1.1	(3.1)	(3.5)	3.8	67	22	(60)	(70)	75
4	Upper	0.216	7H3		101.0	63	10.4	9.6	11.8	15.0	10.4	3.3	0.8	(2.2)	(3.2)	4.6	45	11	(30)	(43)	62
5	Upper	0.216	8E4	8/	97.6	77	8.8	7.7	7.1	8.6	6.8	3.1	1.1	0.6	(1.5)	1.8	51	19	10	(26)	31
6	Upper	0.216	7J1	7/	93.8	125	8.4	6.8	11.8	8.7	6.3	0.2	1.6	(5.0)	3.1	2.5	6	43	(135)	83	66
7	Upper	0.216	18B2	4/,5/	90.7	162	9.2	8.2	10.0	10.5	12.0	1.6	1.0	(1.8)	(0.6)	(1.5)	54	34	(62)	(20)	(51)
8	Chappo	0.130	18L1	1/	75.9	655	8.8	9.3	12.7	14.8	5.3	5.6	(0.5)	(3.4)	(2.1)	9.5	480	(46)	(290)	(175)	813
	Chappo	0.130	13G1	2/	123.3	572	55.7	56.2	59.6	61.7	52.1	5.6	(0.5)	(3.4)	(2.1)	9.6	419	(40)	(253)	(152)	711
9	Chappo	0.130	6W-06C	5/	57.4	927	10.0	8.3	11.0	15.6	7.6	1.2	1.7	(2.7)	(4.6)	8.0	149	201	(327)	(551)	959
10	Chappo	0.130	2201	6/,7/	46.6	420	5.9	4.9	6.9	10.3	2.7	2.7	1.1	(2.0)	(3.5)	7.6	146	58	(109)	(189)	413
11	Ysidora	0.090	35J2	3/	27.0	555	7.8	7.7	9.1	9.6	5.1	1.4	0.1	(1.4)	(0.5)	4.5	72	4	(70)	(25)	224
12	Ysidora	0.090	35R4		26.3	114	8.5	8.1	11.5	11.8	7.3	1.9	0.4	(3.4)	(0.2)	4.5	20	4	(35)	(2)	46
13	Ysidora	0.090	2B2		25.3	287	7.9	8.3	9.4	10.7	7.3	0.7	(0.4)	(1.1)	(1.3)	3.3	17	(10)	(29)	(33)	86
14	Ysidora	0.090	2E1		17.2	179	2.0	2.9	3.7	3.8	1.5	0.1	(0.9)	(0.8)	(0.1)	2.3	2	(14)	(13)	(2)	36
																Upper	544	184	(453)	(76)	257
																Chappo	1,194	173	(978)	(1,067)	2,897
																Ysidora	110	(17)	(148)	(62)	393
																Total	**1,849**	**341**	**(1,579)**	**(1,204)**	**3,546**

Specific Yield from Worts and Boss (1954). Values are for the 5-50 foot zones, except for 35R1, which is from the 50-100 foot zone.
Average September groundwater levels are based on hourly data collected from leveloggers installed in each well.

1/ Well 18L1 was destroyed. GWL adjusted 0.6 feet from Well 13G1 measured groundwater level.
2/ Well 13G1 is located in older alluvium on the bluff to the north side of the Chappo Subbasin. There is approximatly 20 feet of saturated aquifer (Worts and Boss, 1954 cross sections).
3/ Well 35J2 datalogger unavailable for 2016 water depth, field measured water level from 10/26/2016 was used.
4/ Well 18B2 was missing September 2017 data, September 2017 data for MW 26019 was used in its place.
5/ Missing historcal September data filled as follows: Well 26C1 (Nov 2015); Well 6W-06C (Nov 2014); Well 18B2 (Nov 2013)
6/ Missing September 2018 DTW for 2201, DTW was inferred from WSE graph.
7/ Errors in the depth to water from 2019 were corrected and are in bold.
8/ Missing September 2022 DTW for 8E4, DTW was inferred from WSE graph

4.4.2 Murrieta-Temecula Groundwater Basin

The Murrieta-Temecula Groundwater Basin is located along Murrieta and Temecula creeks in the Upper SMRW. Total groundwater storage at the end of WY 2001 was computed for each of 22 hydrologic sub-areas that make up the Groundwater Basin. These computations were based on the areal extent of each sub-area, the thickness of each of three aquifers, (younger alluvium, Pauba aquifer and Temecula aquifer), a specific yield for each aquifer, and the depth to water in each aquifer at the end of the water year. Specific yields were based on unconfined conditions for all aquifers. The total groundwater storage in the uppermost 500 feet as of September 30, 2001, was estimated at 1,340,556 AF.

Since 2001, annual changes in groundwater storage have been computed using two different methodologies for comparison; a water budget method and a groundwater level method.

The Water Budget method determines the change in storage as the difference between the major elements of inflow and outflow for the groundwater area. Table 4.4 shows the changes for WYs 2019 through 2023. The change in groundwater storage for 2022-23, using the Water Budget method, is calculated as an increase of 1,296 AF. It is noted, the return flow from RCWD groundwater production was revised in 2014-15 to subtract the groundwater pumped directly to the recycled water system from the calculation. The revision was applied to previous water years and is reflected in Table 4.4. Also, the return flow percentages were revised in 2016-17 and are incorporated into the calculations for this year.

The Groundwater Level method is based on the changes in water levels in key wells in hydrologic sub-areas. Changes in storage under the Groundwater Level method for WYs 2019 through 2023 are shown on Table 4.5. The change in groundwater storage for 2022-23, using the Groundwater Level method, is calculated as an increase of 12,782 AF.

The foregoing two methods are based on independent measurements and estimates. The estimates from the two methods are generally comparable for the period 2001 through 2023. However, the estimates from the two methods for certain years indicate differences in the results. It will take testing over a number of years under varying hydrologic conditions to refine these approaches. Such testing may include comparing the estimates obtained from these two methods with values computed with the groundwater model that is used for implementation of the CWRMA between CPEN and RCWD.

TABLE 4.4

SANTA MARGARITA RIVER WATERSHED
CHANGES IN GROUNDWATER STORAGE
MURRIETA-TEMECULA GROUNDWATER BASIN
Water Budget Method
Quantities in Acre Feet [1/]

Elements of Inflow	Water Year Ending				
	2019	2020	2021	2022	2023
Releases from Vail [2/]	1,107	734	588	498	946
Releases from Lake Skinner [3/]	190	54	0	0	223
Freshwater Releases to Stream [4/]	3,129	4,829	3,209	3,280	3,900
Reclaimed Water Released to Stream [5/]	0	0	0	0	0
Recharged Imported Water [6/]	16,677	17,092	13,385	14,313	14,528
Return Flow from RCWD Groundwater Production [7/]	4,055	3,999	4,196	4,077	4,153
Return Flow from Import Direct Use [8/]	1,213	1,627	1,906	1,729	886
Return Flow from Applied Wastewater [9/]	762	724	839	889	754
Underflow and Tributary Inflow [10/]	28,154	25,860	2,907	6,722	47,713
Subtotal	55,287	54,919	27,030	31,508	73,103
Elements of Outflow					
Riparian Evapotranspiration and Underflow [11/]	508	508	508	508	508
Total RCWD Groundwater Production [12/]	31,391	30,703	32,207	31,335	31,844
Net Pumping by Others [13/]	1,546	1,355	1,957	1,416	1,514
Surface Outflow [14/]	26,524	25,014	5,928	8,134	37,941
Subtotal	59,969	57,580	40,600	41,393	71,807
Change in Groundwater Storage	(4,682)	(2,661)	(13,570)	(9,885)	1,296

1/ Totals may not add due rounding
2/ Table 3.3, Total Releases.
3/ Section 5.4.
4/ Table A-7, SMR Release.
5/ Table A-7, Reclaimed Wastewater, Murrieta Creek Discharge (ceased October 18, 2002).
6/ Table A-7, Footnote 3. Includes direct recharge and Cyclic Storage deposited.
7/ Table 7.8, Total Production minus releases to streams, multiplied by 0.13.
8/ Rancho Division Direct Use Imports, Table A-7 Footnote 3, multiplied by 0.13.
9/ The sum of: (Reclaimed Wastewater Table A-7, Reuse in SMRW) plus (Table A-1, Reuse in SMRW), multiplied by 0.13.
10/ Murrieta Creek at Temecula Flow times 1.6697 which is based on a correlation between Murrieta Creek at Temecula flow and Tributary Inflow, Areal Recharge and Subsurface Inflow for the period 1977-1998 as shown in Table II-10, Vol. II, Geology and Hydrology, Surface and Ground Water Model of the Murrieta-Temecula Ground Water Basin,
11/ Table II-10, Vol. II, Geology and Hydrology, Surface and Ground Water Model of the Murrieta-Temecula Ground Water Basin, California, dated January 31, 2003.
12/ Table 7.8 Total Production.
13/ The sum of Groundwater Production from: [Table A-1 (EMWD), A-5 (Pechanga), A-10 (WMWD Murieta Division, previously A-5), Appendix C, Murrieta-Temecula Groundwater Area], multiplied by 0.87.
14/ Table 3.2 Santa Margarita River near Temecula.

TABLE 4.5

SANTA MARGARITA RIVER WATERSHED
CHANGES IN GROUNDWATER STORAGE
MURRIETA-TEMECULA GROUNDWATER BASIN
Groundwater Level Method

Sub-area	Key Aquifer	Specific Yield/ Storativity	Key Well	Aquifer Area Acres	Water Depth at End of Water Year, Feet					Change in Depth, Feet					Change in Storage in Water Year, Acre Feet				
					2019	2020	2021	2022	2023	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
1	Temecula	0.0036	510 5/	1,371	253.10	258.64	260.95	271.10	265.67	0.40	(5.54)	(2.31)	(10.15)	5.43	2	(27)	(11)	(50)	27
2	Pauba	0.0398	439	479	25.30	21.02	23.60	27.00	16.91	8.12	4.28	(2.58)	(3.40)	10.09	155	82	(49)	(65)	192
3	Pauba	0.0309	146	802	25.43	22.61	25.30	30.19	19.86	7.09	2.82	(2.69)	(4.89)	10.33	176	70	(67)	(121)	256
4	Pauba	0.0350	101 2/	694	33.17	26.21	22.41	21.71	15.98	8.54	6.96	3.80	0.70	5.73	207	169	92	17	139
5	Pauba	0.0319	102 3/	1,322	62.50	112.83	136.42	127.50	78.92	(12.46)	(50.33)	(23.59)	8.92	48.58	(525)	(2,123)	(995)	376	2,049
6	Pauba	0.0698	495	1,562	59.45	57.78	49.32	47.51	38.60	6.00	1.67	8.46	1.81	8.91	654	182	922	197	971
7	Pauba	0.0012	211	719	119.82	109.33	102.66	101.39	99.56	(3.28)	10.49	6.67	1.27	1.83	(3)	9	6	1	2
8	Qyal	0.20	492	339	30.92	33.70	29.37	29.71	27.42	(0.76)	(2.78)	4.33	(0.34)	2.29	(52)	(188)	294	(23)	155
	Pauba	0.0891	492	496	30.92	33.70	29.37	29.71	27.42	(0.76)	(2.78)	4.33	(0.34)	2.29	(34)	(123)	191	(15)	101
9	Temecula	0.0036	410	2,066	313.20	302.40	290.20	305.21	303.40	(1.50)	10.80	12.20	(15.01)	1.81	(11)	80	91	(112)	13
10	Qyal	0.20	426	1,438	41.20	40.89	39.74	39.41	37.96	(0.25)	0.31	1.15	0.33	1.45	(72)	89	331	95	417
	Pauba	0.0746	426	1,165	41.20	40.89	39.74	39.41	37.96	(0.25)	0.31	1.15	0.33	1.45	(22)	27	100	29	126
11	Qyal	0.20	422	1,405	81.03	82.45	83.92	84.12	85.90	(0.74)	(1.42)	(1.47)	(0.20)	(1.78)	(208)	(399)	(413)	(56)	(500)
	Pauba	0.0634	422	1,413	81.03	82.45	83.92	84.12	85.90	(0.74)	(1.42)	(1.47)	(0.20)	(1.78)	(66)	(127)	(132)	(18)	(159)
12	Qyal	0.20	417	1,769	119.14	108.43	114.20	120.47	113.79	(0.53)	10.71	(5.77)	(6.27)	6.68	(188)	3,789	(2,041)	(2,218)	2,363
	Pauba	0.0422	417	752	119.14	108.43	114.20	120.47	113.79	(0.53)	10.71	(5.77)	(6.27)	6.68	(17)	340	(183)	(199)	212
13	Qyal	0.20	484 4/	898	56.23	63.23	67.57	75.06	34.51	24.70	(7.00)	(4.34)	(7.49)	40.55	4,436	(1,257)	(779)	(1,345)	7,283
	Pauba	0.0198	484 4/	398	56.23	63.23	67.57	75.06	34.51	24.70	(7.00)	(4.34)	(7.49)	40.55	195	(55)	(34)	(59)	320
14	Temecula	0.0036	462	2,084	437.94	434.04	433.36	443.18	454.13	(2.05)	3.90	0.68	(9.82)	(10.95)	(15)	29	5	(74)	(82)
15	Temecula	0.0036	464	1,347	329.87	332.70	334.00	332.30	331.60	2.74	(2.83)	(1.30)	1.70	0.70	13	(14)	(6)	8	3
16	Temecula	0.0036	509 6/	1,967	558.13	566.65	570.74	568.91	568.27	5.17	(8.52)	(4.09)	1.83	0.64	37	(60)	(29)	13	5
17	Temecula	0.0036	139	2,008	575.69	566.44	580.47	553.54	562.53	(1.69)	9.25	(14.03)	26.93	(8.99)	(12)	67	(101)	195	(65)
18	Pauba	0.0967	129	1,546	256.10	259.61	262.32	266.90	266.24	(1.33)	(3.51)	(2.71)	(4.58)	0.66	(199)	(525)	(405)	(685)	99
19	Temecula	0.0036	466	1,562	352.04	337.42	326.46	307.10	335.20	(32.28)	14.62	10.96	19.36	(28.10)	(182)	82	62	109	(158)
20	Pauba	0.0738	493	3,231	289.88	287.43	281.48	283.00	289.67	(9.54)	2.45	5.95	(1.52)	(6.67)	(2,275)	584	1,419	(362)	(1,590)
21	Pauba	0.1392	463	2,303	59.33	57.79	59.30	60.40	58.52	1.11	1.54	(1.51)	(1.10)	1.88	356	494	(484)	(353)	603
*	Pauba	0.0325	Lynch 1/	1,008	30.00	--	--	--	--	0.00	--	--	--	--	0	--	--	--	--
TOTAL															**2,350**	**1,195**	**(2,216)**	**(4,715)**	**12,782**

1/ Well not measured for year with dashes; Sub-area excluded for change in storage calculation for years with no measurement.
2/ Key Well 101 designated for Sub-area 4 in Year 2011; previously Well 401 designated as the Key Well.
3/ Key Well 102 designated for Sub-area 5 in Year 2011; previously Well 402 designated as the Key Well.
4/ Key Well 484 designated for Sub-area 13 in Year 2011; previously Well 414 designated as the Key Well.
5/ Key Well 510 for Sub-area 1 renamed in Year 2012; previously the well was named as Well 301.
6/ Key Well 509 for Sub-area 16 renamed in Year 2012; previously the well was named as Well 209.
* Sub-area is located within Murrieta Division of WMWD; Sub-areas 1 through 21 are located in RCWD.

4.4.3 Anza Groundwater Basin

The Anza Groundwater Basin is located along Cahuilla Creek in the upper portion of the SMRW.

The most recent study that determined storage volumes was conducted by Riverside County in 1990. That study concluded that the groundwater storage of about 182,200 AF in 1950 had decreased to about 165,000 AF in 1986. The study also concluded that ". . . basin hydrogeologic features, production facilities' conditions, and locations/depths of storage . . ." limited the useable portion to 40% of the groundwater storage or about 56,200 acre-feet in 1986.

During WYs 2005 through 2009, groundwater level measurements were made by the USGS in Anza Valley under contract with the Bureau of Indian Affairs (BIA). In 2013, the USGS resumed groundwater level measurements as part of a study on behalf of the High Country Conservancy as the Local Project Sponsor under a DWR Integrated Regional Water Management (IRWM) Planning Grant. RCWD is the managing agency for the Upper Santa Margarita Watershed IRWM Planning Region and contracted with the USGS to conduct the groundwater level measurements. The results of the recent USGS study are published in the report *Aquifer Geometry, Lithology, and Water Levels in the Anza-Terwilliger Area – 2013, Riverside and San Diego Counties, California*, USGS Scientific Investigation Report 2015-5131. The data from these measurements are available at the USGS website: *http://nwis.waterdata.usgs.gov/ca/nwis/gwlevels*.

The wells included in the program can be located by selecting the latitude-longitude box selection criteria and specifying the following bounds:

North Latitude - 33° 37' 00"
South Latitude - 33° 30' 00"
West Longitude - 116° 48' 00"
East Longitude - 116° 38' 00"

Efforts are currently under way for an Anza Baseline Groundwater Management study. The USGS is currently carrying out a study to better define and characterize the thickness and vertical distribution of hydraulic properties of the fractured bedrock aquifer and the vertical distribution of the hydraulic properties of the alluvial aquifer. The USGS plans to analyze baseline data to better understand factors explaining temporal and spatial variations in groundwater levels and the distribution of runoff into and out of the groundwater basin and recharge from ephemeral streamflow and quantify the hydrologic budget (inflows and outflows) of the groundwater basin.

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SECTION 5 - IMPORTS/EXPORTS

5.1 General

Court Orders require the Watermaster to determine the quantities of imported water used in the Watershed. Most of the water imported into the SMRW is delivered by MWD to local districts. MWD obtains its water from the State Water Project (SWP) and the Colorado River. Both the SWP and the Colorado River system have major storage reservoirs to provide long-term carryover storage. The quantities of water in storage at the end of the water year in the major reservoirs in each system are indicated on Table 5.1. Total storage in the SWP for the last ten years is shown graphically on Figure 5.1. Similarly, total storage for the Colorado River Reservoirs for the last ten years is shown on Figure 5.2. It may be seen from Table 5.1 that during 2022-23, water in storage in the SWP increased from 2.02 million AF to 4.08 million AF. Storage at the end of 2022-23 corresponds to about 77% of the total SWP storage capacity.

Water in storage in the Colorado River system increased from 19.2 million AF on September 30, 2022 to 24.9 million AF on September 30, 2023. On September 30, 2023, those reservoirs contained 39% of their total combined capacity.

The DWR prepares projections of water availability in the SWP for the coming year (2024) on a monthly basis from February through May. Statewide precipitation data, as reported by California Water Watch (https://cww.water.ca.gov/), indicate that as of February 4, 2024, the statewide precipitation totaled 11.48 inches, representing 90% of historical average (water year to date) and 48% for the water year average. As of April 23, 2024, the SWP allocation for 2024 will meet 40% of contractors' requests.

The following entities imported water directly or indirectly from MWD into the SMRW:

Eastern Municipal Water District
Elsinore Valley Municipal Water District
Fallbrook Public Utility District
Rainbow Municipal Water District
Rancho California Water District
U. S. Naval Weapons Station Seal Beach, Detachment Fallbrook
Western Municipal Water District

TABLE 5.1

SANTA MARGARITA RIVER WATERSHED
STORAGE IN STATE WATER PROJECT AND COLORADO RIVER RESERVOIRS
Thousands of Acre Feet 1/

STATE WATER PROJECT RESERVOIRS

Reservoir	Total Capacity	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Oroville	3,540	1,076	1,057	1,619	1,332	1,365	2,228	1,631	788	1,230	2,595
San Luis (State Share)	1,060	214	324	439	1,050	714	795	611	208	340	869
Pyramid	171	168	168	167	167	164	167	167	166	166	167
Castaic	324	108	114	232	283	280	290	291	90	117	305
Silverwood	73	71	68	73	69	72	73	70	68	67	66
Perris	132	55	47	48	59	103	98	123	110	95	75
Total	5,300	1,692	1,778	2,578	2,959	2,698	3,651	2,893	1,430	2,016	4,077
Percent of Capacity		32%	34%	49%	56%	51%	69%	55%	27%	38%	77%

MAJOR COLORADO RIVER RESERVOIRS

Reservoir	Total Capacity	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Flaming Gorge	3,789	3,284	3,450	3,207	3,491	3,378	3,410	3,195	2,950	2,680	3,256
Blue Mesa	941	599	726	665	732	282	736	439	241	292	629
Navajo	1,709	1,081	1,392	1,310	1,289	919	1,388	1,149	951	872	1,147
Powell	27,000	12,286	12,333	12,824	14,664	11,028	13,277	11,371	7,280	5,810(r)	8,790
Mead	28,537	10,121	9,854	9,620	10,182	9,870	10,261	10,279	9,015(r)	7,326	8,871
Mohave	1,818	1,645	1,606	1,627	1,603	1,561	1,574	1,525	1,579	1,603	1,587
Havasu	648	583	581	579	564	598	600	554	581	579	582
Total	64,442	29,599	29,942	29,832	32,526	27,637	31,245	28,511	22,596	19,160	24,863
Percent of Capacity		46%	46%	46%	50%	43%	48%	44%	35%	30%	39%

1/ Storage reported for end of water year on September 30.

Figure 5.1

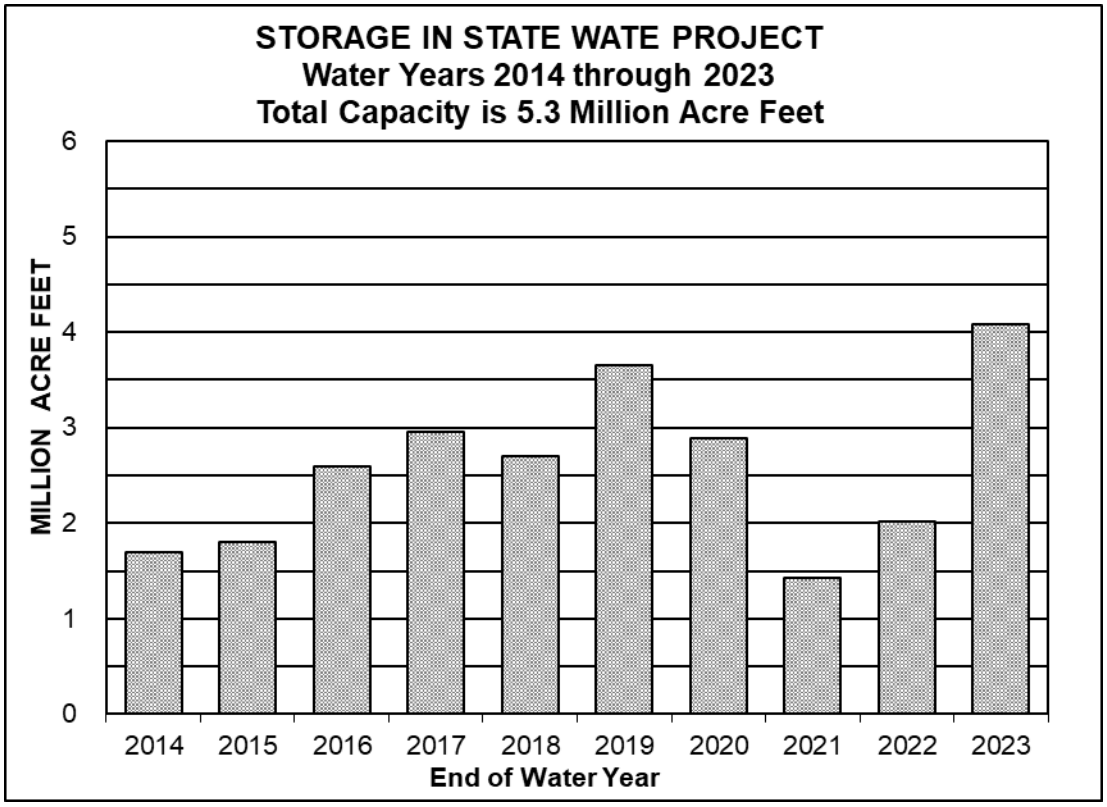
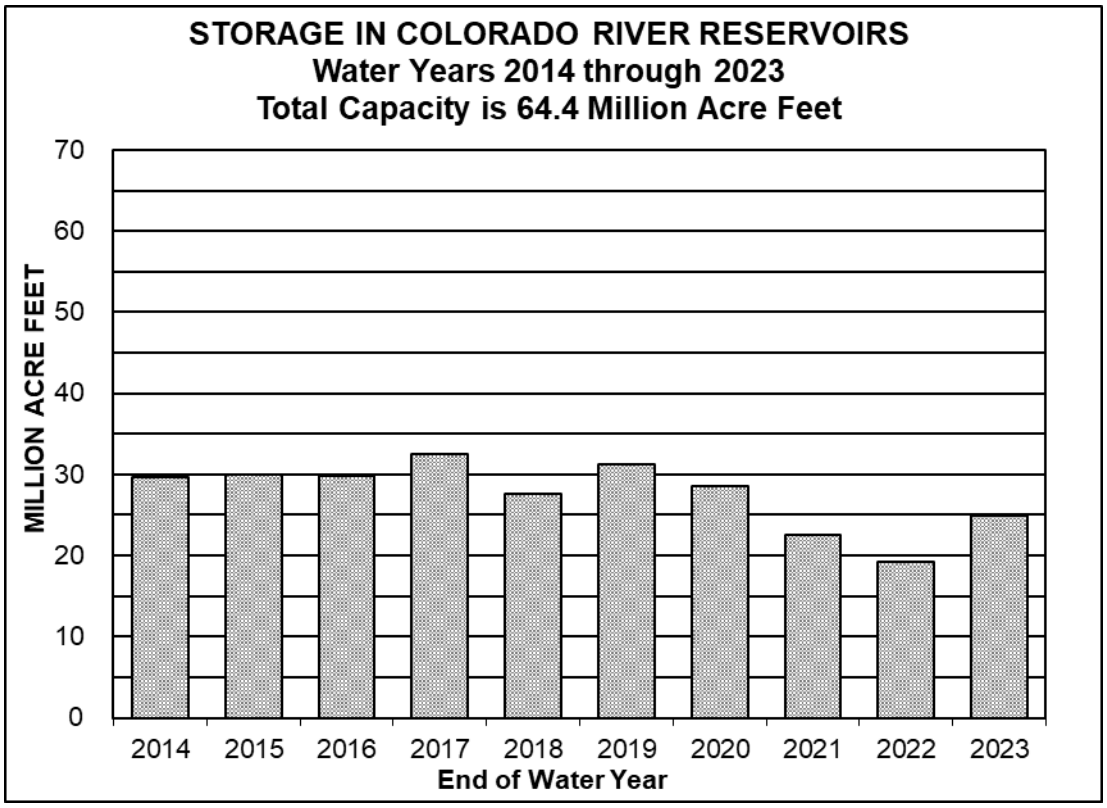


Figure 5.2



In addition to net deliveries through member agencies, MWD, pursuant to a Court Order, imported 925 AF of water into the SMRW for irrigation of lands in Domenigoni Valley during 2022-23.

Water is also imported into the SMRW from adjacent watersheds. Such importation occurs from the Santa Ana Watershed where Elsinore Valley Municipal Water District (EVMWD) delivers water to a portion of its service area that is inside the SMRW. EVMWD obtains its supply from imports or from wells outside the SMRW.

At CPEN there is a pipeline connection to wells located in the Las Flores Creek Watershed to the north of the SMRW. Water can be either imported or exported through that line, depending on relative water demands and pumping capacities. Further, CPEN has the ability to send water through the N-S Cross Base Pipeline to the San Mateo and San Onofre watersheds in the northern portion of the Base. CPEN made deliveries amounting to 703 AF through the N-S Cross Base Pipeline to the San Mateo and San Onofre watersheds during WY 2023.

Exportations from the SMRW include water pumped at CPEN that is used in the San Luis Rey River Watershed to the south or in the Las Flores Creek, San Mateo, or San Onofre Watersheds to the north. The wastewater that is derived from the exported potable water is returned to the Watershed for treatment at the Southern Region Tertiary Treatment Plant. Recycled water is used for irrigation both within and outside the Watershed. Treated wastewater in excess of recycled use is exported for discharge at the Oceanside Outfall. Wastewater from the Fallbrook area and the Naval Weapons Station Seal Beach, Detachment Fallbrook (NWS) is exported by the FPUD and wastewater in the EVMWD is exported by EVMWD. RCWD exports water into the San Mateo Creek Watershed.

EMWD uses a 24-inch pipeline along Winchester Road to transport wastewater from the Temecula Valley Regional Water Reclamation Facility (TVRWRF) to areas within the Watershed for reuse as well as for export of up to 10 million gallons per day (MGD) from the Watershed. EMWD uses a second, 48-inch pipeline along Palomar Valley for delivery of recycled water for reuse and export from the Watershed. RCWD also delivers wastewater to the Palomar Pipeline under an agreement with EMWD to provide coordinated operation of their respective wastewater systems and thus such wastewater originating from RCWD can also be reused or exported through the operation of the Palomar Pipeline by EMWD. The exported wastewater can be reused outside the Watershed, delivered to storage facilities, or discharged to Temescal Creek. In 2022-23, EMWD’s export of wastewater that was discharged to Temescal Creek was 4,912 AF. During 2022-23, RCWD had no deliveries of wastewater to the Palomar Pipeline and thus no export of wastewater for discharge to Temescal Creek can be attributed to wastewater originating from RCWD.

The following paragraphs describe imports and exports during 2022-23 and during the period 1966 through 2023. A discussion of MWD's Lake Skinner and Diamond Valley Lake operations is also provided.

5.2 Water Year 2023

During 2022-23, a total of 51,509 AF of net imported supplies were distributed for use in the Watershed. This compares with 69,998 AF in 2021-22 and represents a decrease of approximately 26.4%. The term net imports are used because several entities report gross imports into the SMRW but due to system configurations and operations, a portion of the gross imports may be transported to serve areas outside of the Watershed. Thus, the net imports reflect the quantities of imported supplies used within the SMRW. Net imports into the Watershed are listed on Table 5.2 for 2022-23.

The water exported from the Watershed for 2022-23 primarily includes wastewater except for CPEN and RCWD. As described in Section 7, CPEN exports native water for use outside the Watershed. Also, RCWD exports groundwater as part of a blended water supply to serve customers in the San Mateo Watershed. Exports from the Watershed for 2022-23 were 21,715 AF as shown on Table 5.2. This compares to 19,465 AF (revised) in 2021-22 and represents an increase of 11.6%.

The quality of the water supplies imported through the MWD system in 2022-23 is indicated by the average monthly Total Dissolved Solids (TDS) at the Skinner Treatment Plant effluent line as shown on Table 5.3. The table also shows the percent of imported water obtained from the SWP.

5.3 Water Years 1966 through 2023

Water quantities imported by districts into the SMRW during WYs 1966 through 2023 are shown on Table 5.4. Total imports to these districts are measured; however, some districts serve lands outside the Watershed. For these districts, which include EMWD, EVMWD, FPUD and Rainbow Municipal Water District (RMWD), the portion delivered in the SMRW must be estimated.

Review of the historical trend of total imports shown on Table 5.4 indicates significant year-to-year variations with relatively low imports in wet years and higher imports in dry years, combined with an underlying growth rate to serve increasing municipal water demands in the Murrieta-Temecula area.

Exports over the period 1966 through 2023 are also shown on Table 5.4. These include estimated water exports on CPEN less estimated wastewater returns, as well as an estimate of exports by FPUD and the NWS after 1983, and EVMWD after 1986. Exports by EMWD were initiated in 1992-1993, and RCWD began quantifying export of water in 2002-03. Exports do not include water that naturally flows from the SMR into the Pacific Ocean.

TABLE 5.2

SANTA MARGARITA RIVER WATERSHED

IMPORTS/EXPORTS

2022-23

Quantities in Acre Feet[1/]

	NET IMPORTS										EXPORTS 4/									
											CAMP PENDLETON									
YEAR MONTH	EASTERN MWD	ELSINORE VALLEY MWD	FALLBROOK PUD	MWD 2/	MURRIETA DIVISION WESTERN MWD	RAINBOW MWD	RANCHO CAL WD	U. S. NAVAL WS	WESTERN MWD 3/	TOTAL NET IMPORTS	EXPORTS 5/	WASTEWATER RETURNS 6/	NET EXPORT	U.S. NAVAL WS	EASTERN MWD 7/	ELSINORE VALLEY MWD	FALLBROOK PUD 8/	RANCHO CAL WD 9/	TOTAL EXPORTS
2022																				
OCT	1,482	536	259	102	100	109	3,230	3	3	5,823	587	140	448	0	939	99	79	18	1,583
NOV	1,226	421	161	58	55	69	1,532	6	2	3,530	527	125	402	0	1,133	74	81	16	1,705
DEC	1,034	372	78	21	33	52	1,064	3	1	2,658	452	106	346	0	1,213	65	77	12	1,713
2023																				
JAN	896	268	12	9	7	41	986	2	1	2,221	349	78	271	0	1,408	65	92	3	1,840
FEB	685	198	0	28	68	29	943	1	1	1,952	426	97	329	0	1,228	64	73	5	1,700
MAR	733	352	0	6	97	35	1,141	2	1	2,370	483	98	385	0	1,630	81	265	2	2,364
APR	773	268	0	93	153	30	1,758	3	2	3,079	476	109	367	0	1,412	81	170	4	2,034
MAY	969	441	54	102	182	57	2,527	3	2	4,337	576	148	428	0	1,308	99	86	12	1,933
JUNE	1,271	510	145	99	168	52	3,084	2	2	5,335	626	165	461	0	1,118	93	67	16	1,755
JULY	1,486	576	122	129	218	77	4,851	2	3	7,465	673	185	488	0	978	84	83	14	1,647
AUG	1,566	693	65	153	201	112	4,029	3	3	6,824	612	168	444	0	1,081	88	123	17	1,753
SEPT	1,598	565	0	124	171	114	3,336	6	3	5,916	621	161	460	0	1,010	75	126	17	1,687
TOTAL	13,718	5,200	896	925	1,452	776	28,481	35	25	51,509	6,409	1,580	4,828	1	14,459	969	1,322	136	21,715

1/ Totals may not add due to rounding.
2/ MWD direct deliveries in Domenigoni Valley as shown on Table A-4.
3/ Improvement District A - Rainbow Canyon Only (WR-13).
4/ All exports are wastewater except as noted for CPEN, FPUD, and RCWD.
5/ Agricultural and Camp Supply use outside the SMRW, recycled use outside the SMRW, plus export to Oceanside Outfall as shown on Table A-8.
6/ Estimated as recycled percentage of Camp Supply use outside the SMRW as shown on Table A-8.
7/ Includes Other Reuse shown on Table A-1, which includes changes of storage in Winchester and Sun City storage ponds, evaporation and percolation losses, and discharges to Temescal Creek in the Santa Ana Watershed.
8/ Includes wastewater exported and SMRW native water (CUP and/or Lake Skinner) delivered to areas outside of SMRW.
9/ Includes groundwater used in San Mateo Watershed and wastewater exported via Palomar Valley Pipeline. No wastewater exported via Palomar Valley Pipeline in 2022-23

TABLE 5.3

SANTA MARGARITA RIVER WATERSHED
TOTAL DISSOLVED SOLIDS
CONCENTRATION OF IMPORTED WATER

YEAR MONTH	TOTAL DISSOLVED SOLIDS MG/L 1/		PERCENT STATE PROJECT WATER 2/	
	2021-22	**2022-23**	**2021-22**	**2022-23**
OCT	573	606	0	0
NOV	575	609	0	0
DEC	572	611	0	0
JAN	578	609	0	0
FEB	570	613	0	0
MAR	449	613	43	0
APR	503	625	17	6
MAY	552	583	11	17
JUNE	582	458	0	36
JULY	590	420	0	43
AUG	610	362	0	53
SEPT	597	349	0	59

1/ As measured in the Skinner Treatment Effluent line.
2/ Skinner Plant treated a blend of California State Project Water and Colorado River water.

TABLE 5.4

SANTA MARGARITA RIVER WATERSHED

IMPORTS/EXPORTS

Quantities in Acre Feet[1/]

	NET IMPORTS													EXPORTS 6/					
WATER YEAR	EASTERN MWD	ELSINORE VALLEY MWD	FALLBROOK PUD 2/	MWD 3/, 11/	MURRIETA DIVISION WESTERN MWD	RAINBOW MWD	RANCHO CAL WD 4/	U.S. NAVAL WS	WESTERN MWD 5/	TOTAL IMPORTS	CAMP PENDLETON			U. S. NAVAL WS	EASTERN MWD	ELSINORE VALLEY MWD	FALLBROOK PUD 8/	RANCHO CAL WD 9/	TOTAL EXPORTS
											EXPORTS	WASTEWATER RETURNS	NET EXPORT						
1966	1,604	N/R	3,351	0	0	1,308	0	0	24	6,287	3,251	974	2,277	0	0	0	0	N/R	2,277
1967	1,630	N/R	2,852	0	0	1,095	0	0	20	5,597	3,180	1,243	1,937	0	0	0	0	N/R	1,937
1968	1,464	N/R	3,423	0	0	1,377	0	0	27	6,291	3,368	1,214	2,154	0	0	0	0	N/R	2,154
1969	1,741	N/R	2,837	0	0	1,253	0	0 E	25	5,856	3,276	1,170	2,106	0	0	0	0	N/R	2,106
1970	1,417	N/R	3,538	0	0	1,689	0	0 E	31	6,675	3,809	1,113	2,696	0	0	0	0	N/R	2,696
1971	1,383	N/R	3,405	0	0	1,650	0	76 E	34	6,548	3,527	1,090	2,437	0	0	0	0	N/R	2,437
1972	1,470	N/R	3,916	0	0	2,037	0	115 E	34	7,572	3,543	1,168	2,375	0	0	0	0	N/R	2,375
1973	1,533	N/R	3,210	0	0	1,616	0	115 E	30	6,504	3,544	1,187	2,357	0	0	0	0	N/R	2,357
1974	1,601	N/R	3,967	0	0	2,049	0	115 E	36	7,768	3,532	1,140	2,392	0	0	0	0	N/R	2,392
1975	1,969	N/R	3,597	0	0	1,247	0	115 E	34	6,962	3,098	1,530	1,568	0	0	0	0	N/R	1,568
1976	2,493	N/R	4,627	0	0	2,239	119	115 E	35	9,628	3,619	1,497	2,122	0	0	0	0	N/R	2,122
1977	2,947	N/R	5,212	0	0	2,343	1,845	115 E	24	12,486	3,194	1,416	1,778	0	0	0	0	N/R	1,778
1978	2,551	569	5,202	0	0	2,188	5,774	115 E	26	16,425	3,071	1,283	1,788	0	0	0	0	N/R	1,788
1979	1,894	712	5,723	0	0	2,348	7,009	115 E	24	17,824	4,756	1,427	3,329	0	0	0	0	N/R	3,329
1980	1,192	696	6,404	0	0	2,489	10,126	115 E	25	21,047	3,651	1,405	2,246	0	0	0	0	N/R	2,246
1981	716	798	8,543	0	0	3,153	15,282	115 E	34	28,642	3,892	1,249	2,643	0	0	0	0	N/R	2,643
1982	1,112	678	7,079	0	0	2,460	13,378	115 E	34	24,856	3,761	1,273	2,488	0	0	0	0	N/R	2,488
1983	1,211	658	6,720	0	0	2,190	5,752	115 E	26	16,672	3,000	1,242	1,758	26 E	0	0	1,003	N/R	2,787
1984	699	816	8,506	0	0	3,068	6,716	115 E	26	19,946	3,243	1,120	2,123	26 E	0	0	1,032	N/R	3,181
1985	679	808	7,831	0	0	3,410	7,158	102	27	20,015	3,377	1,200	2,177	26 E	0	0	1,060	N/R	3,263
1986	760	882	8,585	0	0	2,945	11,174	94	34	24,474	3,326	981	2,345	16 P	0	0	1,096	N/R	3,457
1987	1,155	938	8,656	0	0	3,390	7,564	116	36	21,855	3,444	1,799	1,645	26	0	4	1,129	N/R	2,805
1988	2,047	1,032	8,033	0	0	2,985	17,854	120	36	32,108	3,457	1,872	1,585	26	0	55	1,154	N/R	2,820
1989	3,746	1,341	9,066	0	0	3,003	22,895	128	23	40,202	3,418	1,446	1,972	23	0	74	1,181	N/R	3,250
1990	5,601	2,255	10,103	0	0	3,818	22,030	145	22	43,974	2,971	1,451	1,520	27	0	114	1,271	N/R	2,932
1991	9,479	2,421	7,962	0	0	2,904	21,238	109	21	44,134	2,168	1,219	949	13	0	134	960	N/R	2,056
1992	8,593	2,190	7,893	0	0	2,277	16,931	99	25	38,008	2,426	1,548	878	7	0	140	1,083	N/R	2,108
1993	5,393	2,964 R	6,925	0	0	1,965	11,411	117	31	28,806	2,329	1,926	403	16	705	150	1,255	N/R	2,529
1994	7,150	3,232 R	7,250	0	0	1,651	16,386	73	37	35,779	2,702	1,501	1,201	5	3,159	170	1,068	N/R	5,603
1995	4,625	3,127 R	6,538	547	0	1,661	15,108	125	29	31,760	2,781	1,611	1,170	12	3,908	185	1,153	N/R	6,428
1996	4,960	4,197 R	7,993	1,005	0	1,815	23,600	100	35	43,705	3,577	1,493	2,084	5	2,993	213	1,035	N/R	6,330
1997	3,284	4,296 R	7,894	3,521	0	1,429	26,992	109	30	47,555	3,643	1,932	1,711	6	3,201	226	1,021	N/R	6,165
1998	5,117	5,100	6,382	5,023	0	1,601	19,584	97	31	42,935	3,742	2,073	1,669	8	4,513	247	1,482	N/R	7,919
1999	4,327	6,133 R	7,430	3,781	0	1,727	34,490	111	41	58,040	3,558	2,130	1,428	5	4,133	254	1,377	N/R	7,197
2000	7,256	7,174 R	9,365	712	0	2,217	55,409	104	42	82,279	4,072	2,115	1,957	7	3,649	279	1,419	N/R	7,311
2001	5,948	6,215 R	8,398	689	0	1,804	41,823	73	59	65,009	3,653	2,075	1,578	8	4,457	310	1,392	N/R	7,745
2002	8,117	7,596	9,580	595	0	1,676	54,148	97	64	81,873	3,701	1,950	1,751	9	5,325	412	1,225	N/R	8,722
2003	9,062	7,091	9,130	495	102	1,510	50,744	88	42	78,264	3,767	1,688	2,079	10	7,636	483	1,359	64	11,631
2004	9,138	8,438	11,749	766	330	1,888	62,408	73	50	94,840	4,951 7/	0	4,951	8	9,115	600	1,329	312	16,315
2005	10,858	8,215	8,108	556	75	1,610	47,614	40	62	77,138	4,625 7/	0	4,625	16	11,676	927	1,417	1,574	20,235
2006	14,161	9,819	10,573	506	316	1,851	60,611	64	66	97,967	4,912 7/	0	4,912	8	10,906	938	1,395	1,379	19,538

TABLE 5.4

SANTA MARGARITA RIVER WATERSHED

IMPORTS/EXPORTS

Quantities in Acre Feet[1/]

	NET IMPORTS										EXPORTS 6/								
											CAMP PENDLETON								
WATER YEAR	EASTERN MWD	ELSINORE VALLEY MWD	FALLBROOK PUD 2/	MWD 3/, 11/	MURRIETA DIVISION WESTERN MWD	RAINBOW MWD	RANCHO CAL WD 4/	U.S. NAVAL WS	WESTERN MWD 5/	TOTAL IMPORTS	EXPORTS	WASTEWATER RETURNS	NET EXPORT	U. S. NAVAL WS	EASTERN MWD	ELSINORE VALLEY MWD	FALLBROOK PUD 8/	RANCHO CAL WD 9/	TOTAL EXPORTS
2007	15,398	10,811	12,292	660	723	2,262	63,818	70	45	106,079	5,152 7/	0	5,152	12	10,553	837	891	364	17,809
2008	14,952	9,951	8,920	493	2,180	1,790	50,683	82	54	89,105	4,774 7/	0	4,774	11	12,789	901	799	361	19,635
2009	14,472	9,075	8,557	607	1,654	1,852	50,270	74	51	86,612	5,362 10/	1,119	4,243	12	12,027	1,069	829	367	18,547
2010	13,552	7,926	7,183	385	1,462	1,453	40,894	69	62	72,986	5,143 10/	1,075	4,068	7	11,829	1,120	926	318	18,268
2011	14,392	7,425	6,234	336	1,642	1,492	39,411	45	52	71,029	5,516 10/	1,441	4,075	8	12,381	1,130	901	302	18,797
2012	15,063	7,398	7,254	466	1,371	1,892	41,900	48	48	75,440	5,595 10/	1,672	3,923	9	12,550	1,205	928	284	18,898
2013	15,751	7,158	7,357	892	1,365	1,713	40,571	47	35	74,889	5,367 10/	1,254	4,113	3	11,775	1,245	900	289	18,325
2014	15,884	7,413	7,578	1,074	1,407	1,732	46,603	58	35	81,785	5,375 10/	1,099	4,276	6	11,744	1,307	896	289	18,518
2015	13,877	5,992	5,919	1,090	820	1,333	33,573	44	29	62,677	4,837 10/	1,127	3,710	3	11,698	1,328	1,086	251	18,076
2016	13,602	5,889	5,395	1,186	1,290	1,298	35,478	62	42	64,242	4,502 10/	1,178	3,324	1	10,778	1,431	724	202	16,460
2017	13,441	5,970	4,576	1,128	1,711	1,186	40,334	67	30	68,444	4,917 10/	1,213	3,704	1	11,982	1,468	791	163	18,109
2018	15,007	6,378	5,377	1,194	1,820	1,271	43,977	65	29	75,119	5,517 10/	1,170	4,347	0	10,918	1,489	731	176	17,661
2019	13,453	5,870	3,519	554	1,529	1,170	35,362	85	30	61,573	5,790 10/	1,323	4,467	1	12,122	1,484	922	175	19,171
2020	14,606	6,008	3,817	803	1,753	1,202	42,447	46	45	70,726	5,829 10/	1,295	4,534	0	12,926	1,598	862	152	20,072
2021	16,549	6,606	3,832	1,043	1,385	752	40,077	44	38	70,326	6,167 10/	1,334	4,833	0	11,839	1,782	777	154	19,385
2022	15,958	6,244	3,201	1,081	2,104	1,241	40,074	67	30	69,998	5,907 10/	1,323	4,584	1	11,616	1,649	1,468 (R)	147	19,465 (R)
2023	13,718	5,200	896	925	1,452	776	28,481	35	25	51,509	6,409 10/	1,580	4,828	1	14,459	969	1,322	136	21,715

1/ Totals may not add due to rounding.
2/ Includes DeLuz Heights MWD prior to 1991.
3/ MWD direct deliveries in Domenigoni Valley plus miscellaneous maintenance releases beginning 2009.
4/ For period 2003 to present, values shown are net imports excluding imported water delivered to San Mateo Watershed.
5/ Improvement District A - Rainbow Canyon Only (WR-13).
6/ All exports are wastewater except as noted for CPEN, FPUD, and RCWD.
7/ Includes export of native water plus wastewater from in-basin use.
8/ Includes wastewater and SMRW production served outside the watershed.
9/ Includes groundwater used in San Mateo Watershed and wastewater exported to Santa Ana Watershed.
10/ Includes export of native water plus recycled water.
11/ For Water Year 2019, low amount of San Diego Canal water reported is due to meter error. Flow meter was replaced October 2019. See Appendix Table A-4 2016-2018 quantities for more representative amounts of San Diego Canal water delivered by MWD for irrigation use in the Domenigoni Basin.

N/R - Not Reported
P - Partial year data
E - Estimate
R - Revised

5.4 Lake Skinner

Lake Skinner is a 44,000 AF reservoir constructed by MWD on Tucalota Creek, within the SMRW. The purpose of Lake Skinner is to provide regulatory and emergency storage capacity for water imported to southern California. MWD does not have a water right to store or divert local water in Lake Skinner. Accordingly, a Memorandum of Understanding and Agreement on Operation of Lake Skinner (MOU), dated November 12, 1974, approved by the Court on January 16, 1975, contains provisions to protect SMRW water users from potential effects of Lake Skinner on either subsurface or surface flows.

Protection against a decrease in subsurface flows caused by the dam is afforded by a provision in the MOU that requires MWD release water from Lake Skinner into Tucalota Creek if groundwater levels in Well AV-28B fall below an elevation of 1,356.64 feet. During 2022-23, MWD released 4 AF for the specific purpose of groundwater replenishment to ensure the groundwater elevation in Well AV-28B was maintained above the indicated threshold elevation of 1,356.64 feet. For comparison purposes, the groundwater elevation was 1,358.56 feet on September 29, 2023, an increase of 1.60 feet compared to 1,356.96 feet on September 30, 2022.

In addition, operations at Lake Skinner periodically require miscellaneous maintenance releases from Lake Skinner into various creeks and their tributaries, including Tucalota Creek, Rainbow Creek, Warm Springs Creek, and Murrieta Creek that also replenish groundwater levels. In 2022-23, MWD released a total of 219 AF of maintenance releases from Lake Skinner. Also, MWD periodically makes maintenance releases from various points throughout the MWD distribution system. In 2022-23, MWD made no maintenance releases from the distribution system.

The MOU also provides that all local surface inflow that enters Lake Skinner will be released into Tucalota Creek. In its 1980 modification, the MOU provides that local surface inflow is to be determined by using the hydrologic equation for Lake Skinner that is specified in the MOU. That equation is used to determine inflow and the related release for large flood events. However, in many years the local inflow is small compared to the large quantities of imported water inflow and outflow at Lake Skinner. The error of measurement for these large inflows and outflows is larger than the local inflow in many instances. Accordingly, MWD also monitors the flow in Tucalota Creek, Rawson Creek and Middle Creek during storms and uses those observations to supplement the hydrologic equation.

On February 16, 2005, the Court approved an Order Amending the MOU to provide for diversion from Lake Skinner on FPUD's behalf after specified releases are made, according to SWRCB Permit 11356 and the amended Lake Skinner MOU. In 2022-23, MWD records show no local inflow to Lake Skinner and subsequently there were no required releases in accordance with the MOU. In 2022-23, no water was accumulated in Lake Skinner for diversion to FPUD (inflow less required releases).

5.5 Diamond Valley Lake

Diamond Valley Lake is located in Diamond and Domenigoni Valleys within the SMRW. The lake was created by three dams, one each at the east and west ends of Domenigoni/Diamond Valley and a saddle dam at the low point on the north rim. The West Dam intercepts flows in the headwaters of Warm Springs Creek, a tributary of the SMR through Murrieta Creek. The drainage area for the headwaters of Warm Springs Creek above the West Dam is 17.2 square miles.

MWD does not have a water right to store local waters in the reservoir, now known as Diamond Valley Lake, so a Memorandum of Understanding and Agreement on Operation of Domenigoni Valley Reservoir was developed and approved by the Court on January 19, 1995. Among other things, this MOU provides:

> *The quantity and quality of surface runoff that would flow past the West Dam in the absence of the Reservoir will be determined and a like quantity of water of similar quality will be released from the Reservoir or San Diego Canal into Warm Springs Creek.*

The MOU specifies that the required releases into Warm Springs Creek will be determined by measuring the surface water inflows into Goodhart Canyon Detention Basin. The detention basin receives surface water inflows from Goodhart Creek, which is located in an adjoining watershed that is tributary to the Santa Ana River. The drainage area of Goodhart Creek upstream of the detention basin is 4.2 square miles. The rainfall-runoff characteristics of the Goodhart Creek drainage area were determined to be the same as the rainfall-runoff characteristics of the Warm Springs Creek headwaters above the West Dam. Thus, the required releases into Warm Springs Creek are equal to 4.1 times the measured inflow into Goodhart Canyon Detention Basin, as determined as the ratio of the drainage areas for the respective watersheds.

The total required releases into Warm Springs Creek during 2022-23 were approximately 85.5 AF.

Although all surface waters within the SMRW in Domenigoni Valley and Diamond Valley are subject to the continuing jurisdiction of the Court, groundwater contained within the alluvium, north of the south line of Section 9, Township 6 South, Range 2 West, San Bernardino Meridian (SBM) is not considered by the Court to be a part of the SMR system as long as groundwater levels are below an elevation of 1,400 feet. During 2022-23, groundwater elevations in Well MO-6, which is located along the south line of Section 9, increased 4.8 feet from 1,382.4 feet at the beginning of the water year to 1,387.2 feet on October 3, 2023.

During 2022-23, there were no injections into the Domenigoni Valley groundwater basin pursuant to Agreements for Mitigation of Groundwater. However, pursuant to a Court Order, MWD imported 925 AF of water into the SMRW for irrigation of lands in Domenigoni Valley. As previously noted, the groundwater in the Domenigoni Valley groundwater basin is outside the Court's jurisdiction when groundwater levels are below an elevation of 1,400 feet.

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SECTION 6 - WATER RIGHTS

6.1 General

The SMRW is adjudicated in accordance with the Modified Final Judgment and Decree filed on April 6, 1966, in the U.S. District Court, Southern District of California in *United States v. Fallbrook Public Utility District*, *et al*. Water is used in the Watershed under a variety of water rights, as more specifically described in the Interlocutory Judgments incorporated into the Modified Final Judgment and Decree, as primarily riparian rights and overlying rights. In general, riparian rights belong to owners of land parcels located adjacent to streams in the Watershed or overlying younger alluvium deposits generally along the stream channels. Overlying rights were divided by the Court into two categories based on the location where the water is obtained and used. Water extracted from lands where subsurface waters add to, contribute to and support the SMR stream system was found to be subject to the continuing jurisdiction of the Court. Lands in this category were identified by the Court and listed in Interlocutory Judgments. In general, these parcels of land overlie younger or older alluvium deposits. The Court has stated that the issue of apportionment of water rights has not been presented to the Court, but the Court would rule on apportionment if and when in the future it becomes necessary to do so.

The other category of overlying use applies to parcels of land where subsurface flows do not add to, contribute to, or support the SMR stream system. These parcels were also identified by the Court and found to be outside the continuing jurisdiction of the Court. In general, these lands overlie basement complex or residuum deposits.

The Court also described a number of other rights in the Watershed. These included surface water appropriative water rights that have been administered by the State of California since 1914. These rights are discussed in the following subsection.

In Interlocutory Judgment No. 41, the Court found that the United States reserved rights to the use of the waters of the SMR stream system which under natural conditions would be physically available on the Cahuilla, Pechanga, and Ramona Indian Reservations, including rights to the use of groundwater, sufficient for the present and future needs of the Indians residing thereon. In Interlocutory Judgment No. 44, the Court recognized and reserved water rights for lands within the Cleveland and San Bernardino National Forests and for lands being administered pursuant to the Taylor Grazing Act.

Since the early 1960's, there have been substantial changes in water use in the Watershed, especially in the Murrieta-Temecula Groundwater Area. During the 1950's and early 1960's most of the water use in the Murrieta-Temecula area consisted of individual property owners pumping water for use on their own properties. In 1965, the RCWD was formed. RCWD developed Agency Agreements with most of the landowners within the District. In these Agency Agreements, the landowners "...without transferring any water rights and privileges pertaining to said land..." designated RCWD as their exclusive agent for the development and management of their water supply. Thus, many landowners within the RCWD are not exercising their overlying rights. Instead, RCWD pumps groundwater and uses it throughout the District area as agent on behalf of the landowners.

The resulting change is that RCWD presently produces groundwater in the Murrieta-Temecula Groundwater Area under a variety of rights: (1) recovery of water appropriated at Vail Lake, (2) recovery of import return flows and recharged imported water, (3) groundwater appropriative rights, and (4) as agent on behalf of the overlying landowners. Classification of RCWD supplies into these various water right categories is discussed in Section 7 of this Report. Related to the change associated with RCWD production is the increased production by WMWD within its Murrieta Division. As discussed in Section 7 of this Report, all groundwater production in the Murrieta Division by WMWD is classified as production from the older alluvium under a groundwater appropriative right.

Another change from the early 1960's is the large-scale importation of water into the SMRW by RCWD. A portion of such importation finds its way into the groundwater aquifers. The legal status of return flows from imported supplies as well as direct recharge of imported water was clarified in *City of Los Angeles v. City of San Fernando*, *et al.*, 1975 14 Cal. 3rd 199. This decision in the Supreme Court of the State of California made two major findings with respect to imported water.

The first was that agencies have the right to recharge and store imported water in a groundwater basin and to extract the imported water for use, subject to applicable state and federal laws. In addition, agencies that import and deliver water to lands overlying a groundwater basin have a continuing right to extract the return flow from such water. The return flow is that portion of the imported supply that percolates into the groundwater basin. In the San Fernando case this portion was found to range from 20% to 35.7% of imported supplies.

The Rancho Division of RCWD overlies the Murrieta-Temecula Groundwater Area. Thus, a portion of the import supply delivered to the Rancho Division of RCWD percolates into the underlying aquifers. Imported water is also supplied to the Santa Rosa Division within RCWD, however only a relatively small part of this division overlies the Murrieta-Temecula Groundwater Area. Thus, there is less imported water return flow from the Santa Rosa Division.

CPEN, through the United States, contends that the Court can assert and exercise jurisdiction over imported water to the full extent that imported water operations and use affect any significant manner the water rights within the SMRW. Other parties are in dispute regarding the Court’s jurisdiction over imported water.

6.2 Appropriative Surface Water Rights

Another broad category of water rights used in the Watershed is surface water appropriative rights. Since 1914, these rights have been administered by the SWRCB.

A list of current permits, licenses and other rights obtained from the SWRCB is shown on Table 6.1. A permit by the SWRCB authorizes water diversion, sets terms for the water project's completion and development of water use, and may impose other conditions. After the permittee demonstrates that construction is complete, water is being put to use and the permit conditions have been met, the SWRCB can issue a license. The license remains in effect as long as the license conditions are met and the water is put to beneficial use.

Active direct diversion rights and storage rights from creeks in the Watershed are summarized below:

	Direct Diversions AF/Year	Storage AF/Year
Cahuilla Creek/Valley	0.8	---
DeLuz Creek	859.7	230
Long Canyon Spring	0.44	---
Rattlesnake Canyon	7.9	---
Sandia Canyon	113.0	---
Santa Margarita River[1]	16,008	34,250
Temecula Creek	111.2	40,040
Tucalota Creek	---	10,000
TOTAL	17,101.0	84,520

The value of 17,101.0 AF per year reflects the annual maximum allowed under the restrictions of such right. For example, rights associated with Rattlesnake Canyon (Application ID-A011161) show direct diversion of 12,000 gallons per day, with the restriction of diverting only from April 1 through October 31, which correlates to the listed 7.9 AF per year.

[1] For purposes of this summary, water rights held by CPEN/FPUD are split as 15,989 AF as direct diversion and 30,250 AF as storage.

TABLE 6.1

SANTA MARGARITA RIVER WATERSHED
APPROPRIATIVE WATER RIGHTS

PERMITS AND LICENSES

APPLICATION I.D.	PERMIT I.D.	OWNER	FILING DATE	SOURCE OF WATER	POINT OF DIVERSION	AMOUNT	USE	STATUS
A006629	003584	William H. & Sandra J. Cyrus	4/9/1930	Cahuilla Valley	Sec. 4, 7S, 3E	DD-0.8 AF/yr	D	License
A006893	003719	John Miller	2/13/1931	Temecula Creek	Sec. 20, 9S, 2E	DD-820 gpd	D/I	License Revoked
A007731	004259	John Miller	11/2/1933	Temecula Creek	Sec. 20, 9S, 2E	DD-7,200 gpd	D/I	License Revoked
A009137	005090	Hill Springs Farms, LLC	10/7/1937	Temecula Creek	Sec. 12, 9S, 1E	DD-0.5 AF/yr	D	License Revoked
A009291	005201	Richard W. Long	5/13/1938	DeLuz Creek	Sec. 23, 8S, 5W	DD-1.7 AF/yr	D	License
A010806	006279	James R., Phyllis & Bruce Grammer	4/22/1944	Temecula Creek	Sec. 34, 9S, 2E	DD-3.2 AF/yr	D	License
A011161	006499	Roy C. Pursche & Barbara Booth	9/26/1945	Rattlesnake Canyon	Sec. 28, 9S, 2E	DD-7.9 AF/yr	D/I	License
A011518	007032	Rancho California Water District	8/16/1946	Temecula Creek	Sec. 10, 8S, 1W	ST-40,000 AF/yr	D/I/IN/M/R	Permit
A011587 1/	008511	U.S. Department of the Navy, Marine Corps Base Camp Pendleton & Fallbrook Public Utitlity District	10/11/1946	Santa Margarita River	(17 Points, see Permit)	DD-22 cfs ST-10,000 AF/yr	D/I/M	Permit
A012178	011356	Fallbrook Public Utility District	11/28/1947	Tucalota Creek	Sec. 3, 7S, 2W	ST-10,000 AF/yr	D/I/M	Permit
A012179 1/	011357	U.S. Department of the Navy, Marine Corps Base Camp Pendleton & Fallbrook Public Utitlity District	11/28/1947	Santa Margarita River	(17 Points, see Permit)	DD-22 cfs ST-10,000 AF/yr	D/I/M	Permit
A013505	008166	Stehly Family Holdings, LLC	12/12/1949	DeLuz Creek	Sec. 30, 8S, 4W	DD-158 AF/yr ST-42 AF/yr	R/S	License
A017239	012312	Joseph Vidov	8/15/1956	Temecula Creek	Sec. 20, 9S, 2E	DD-0.1 AF/yr	D/E	License
A020507	014715	Robert R. Baum	11/24/1961	DeLuz Creek	Sec. 19, 8S, 4W Sec. 30, 8S, 4W	ST-18 AF/yr	I/R	License
A020608	014716	Pete and Dorothy Prestininzi	2/13/1962	DeLuz Creek	Sec. 20, 8S, 4W	ST-100 AF/yr	D/I/R	License
A020742	013913	U. S. Cleveland National Forest	4/24/1962	Temecula Creek	Sec. 25, 9S, 1E	DD-0.1 AF/yr	E	License
A021074	014087	U. S. Cleveland National Forest	12/7/1962	Long Canyon	Sec. 17, 9S, 1E	DD-0.1 AF/yr	S/W	License
A021471A 1/	015000A	U.S. Department of the Navy, Marine Corps Base Camp Pendleton & Fallbrook Public Utitlity District	9/23/1963	Santa Margarita River	(17 Points, see License)	DD-22 cfs ST-4,000 AF/yr	D/I/M/Z	License
A021471B 1/	015000B	U.S. Department of the Navy, Marine Corps Base Camp Pendleton & Fallbrook Public Utitlity District	9/23/1963	Santa Margarita River	(17 Points, see Permit)	DD-22 cfs ST-22,050 AF/yr	D/I/M/Z	Permit
A027756	019038	James R. Grammer	5/23/1983	Temecula Creek	Sec. 3, 10S, 2E	DD-4.3 AF/yr	I/W	License
A028133	019522	Charles D. Ruggles	5/14/1984	Cahuilla Creek	Sec. 15, 8S, 2E	ST-5 AF/yr	E/H/I/R/S	Revoked

OTHER RIGHTS

F005751S*	N/A	U. S. Cleveland National Forest	7/1/1984	Long Canyon Spring	Sec. 16, 9S, 1E	DD-0.34 AF/yr	E/R/S/W	Claimed
S000024**	N/A	Judge Dial Perkins	11/4/1966	Santa Margarita River	Sec. 12, 9S, 4W	DD-0.34AF/yr	D	Inactive
S000751**	N/A	Lawrence Butler	5/27/1967	Fern Creek	Sec. 31, 8S, 4W	DD-238.9 AF/yr ST-100 AF/yr	I	Inactive
S011411**	N/A	Agri Empire, Inc.	7/3/2008	Temecula Creek	Sec. 33, 9S, 2E	DD-103.5 AF/yr ST-40 AF/yr	I/S	Claimed
S012235**	N/A	Roger Townsend	8/27/1985	DeLuz Creek	Sec. 4, 9S, 4W	DD-5.3 AF/yr	D/I	Inactive
S014009**	N/A	San Diego State University	7/11/2004	Santa Margarita River	Sec. 27, 8S, 3W	DD-19 AF/yr	D/I/Z	Claimed
S021168**	N/A	Saunders Trust	6/30/2010	Sandia Canyon	Sec. 25, 8S, 4W	DD-48.5 AF/yr	D/I	Claimed
S021458**	N/A	Ron Peterson	7/6/2010	Sandia Canyon	Sec. 25, 8S, 4W	DD-48.5 AF/yr	I	Claimed
S023638**	N/A	Laura Cedano	6/29/2010	DeLuz Creek	Sec. 30, 8S, 4W	DD-48.5 AF/yr ST-70 AF/yr	I	Claimed
S028225**	N/A	Justin Griffin	6/29/2019	Sandia Canyon	Sec. 30, 8S, 3W	DD-16 AF/yr	I	Claimed
001583***	N/A	George F. Yackey	12/27/1977	Sandia Canyon	Sec. 25, 8S, 4W	ST-8.0 AF/yr	S	Unknown
002380***	N/A	Chris R. & Jeanette L. Duarte	12/16/1977	Rainbow Creek	Sec. 12, 9S, 3W	ST-0.5 AF/yr	S	Revoked

KEY TO USE: *DD - Direct Diversion* *D - Domestic* *R - Recreation* *E - Fire Protection* *H - Fish Culture*
ST - Diversion to Storage *I - Irrigation* *M - Municipal* *S - Stockwatering* *Z - Other*
IN - Industrial *W - Fish & Wildlife Protection and/or Enhancement*

NOTES: ** Federal Filing* *** Statement of Diversion and Use* **** Stock Filing* *N/A Not Applicable*

1/ The total quantiy of water diverted under the rights pursuant to Permits 8511, 11357, 15000B and License 15000A shall not exceed 46,239 AF annually.

Storage rights shown in Table 6.1 include 46,050 AF of storage rights and 39,265 AF of direction division rights (combined total not to exceed 46,239 AF annually) on the SMR held by the U.S. Department of the Navy, Marine Corps Base Camp Pendleton and FPUD (Permits 008511, 11357, and 15000B and License 15000A). Changes that allow for the use of License 10494 and Permits 8511, 11357, and 15000 to divert and beneficially use water to support the Santa Margarita River Conjunctive Use Project (CUP), being developed jointly by the Department of the Navy Marine Corps Base, Camp Pendleton, and FPUD, were granted by the SWRCB in November 2018. Diversion of water under these rights are subject to oversight by the Watermaster. Camp Pendleton also exercises riparian and pre-1914 rights. Pre-1914 rights are show in Table 6.2.

Table 6.1 also lists other rights recognized by the SWRCB. These rights generally are based on Statements of Water Diversion and Use that have been filed with the SWRCB. Such statements include one by the United States on behalf of the Cleveland National Forest, which states that the diversion and use of water from Long Canyon Spring is made pursuant to a withdrawal and reservation of the land and resources for National Forest System purposes as of February 14, 1907.

Besides the federal filing, there are also Statements of Water Diversion and Use filed by other entities. Four of these statements represent riparian or pre-1914 appropriative diversions from DeLuz Creek, Fern Creek and SMR that have been reported to the SWRCB. The other statement represents a pre-1914 appropriative right to divert water from a spring in Kohler Canyon (tributary to Temecula Creek, above Vail Lake) into a 40 AF reservoir.

The last two rights noted on Table 6.1 represent filings made in 1977 pursuant to Chapter 2.5 to Division 3 of Title 23 of the California Code of Regulations. That chapter deals with Water Rights for Stockponds.

In addition to appropriative rights under SWRCB jurisdiction, there are a number of non-statutory appropriative rights that were established prior to 1914. These rights continue to be used to support diversions of water from the SMR stream system. Such rights, which are listed in the various Interlocutory Judgments in this litigation, are shown on Table 6.2.

On November 19, 1998, the SWRCB adopted Order No. 98-08 entitled “Order Revising Declaration of Fully Appropriated Stream Systems” to revise its prior Order Nos. 89-25 and 91-07. These Orders list the SMR stream system as fully appropriated “from the mouth of the Santa Margarita River at the Pacific Ocean upstream including all tributaries where hydraulic continuity exists.”

TABLE 6.2

SANTA MARGARITA RIVER WATERSHED
PRE - 1914 APPROPRIATIVE WATER RIGHTS
Listed in Interlocutory Judgments

INTERLOCUTORY JUDGMENT	LISTED OWNER	CURRENT OWNER	DATE OF APPROPRIATION	SOURCE OF WATER	POINT OF DIVERSION	AMOUNT	USE
NO. 32	Anderson, Nina B.	Cedano, Andres and Laura	April 11, 1892	Fern Creek	NW 1/4 of SE 1/4 Sec 31, T8S, R4W	32 gpm	Irrigation
NO. 32	Butler, Lawrence W. and Mary C.	Vanginkel, Norman Tr and Vanginkel, Deborah Tr	Sept. 23, 1896	Fern Creek	NW 1/4 of SE 1/4 Sec 31, T8S, R4W	Capacity of 8 inch pipe	Irrigation
NO. 32	Wilson, Samuel M. and Hazel A.	Shirley, Bobbie	Aug. 3, 1911	DeLuz Creek	NW 1/4 of SW 1/4 Sec 32, T8S, R4W	50 miner's inches 65 AF/yr	Irrigation
NO. 24/24A	United States	United States	1883	Santa Margarita River	Sec 5, T10S, R4W	20 cfs 1,200 AF/yr	Domestic Irrigation Stock Water

The consequences of this Order are as follows:

1. The SWRCB is precluded from accepting any application to appropriate water from the SMR System except where the proposed appropriation is consistent with conditions contained in the Declaration.

2. Initiation of a water right, pursuant to the Water Rights Permitting Reform Act of 1988 (Water Code Section 1228 *et seq*.), by registering small use domestic appropriations is precluded, except where the proposed appropriation is consistent with conditions contained in the Declaration. Small use domestic appropriations refer to uses that do not exceed direct diversions of 4,500 gallons per day or diversion by storage of 10 AF per year for incidental aesthetic, recreational, or fish and wildlife purposes.

3. Pursuant to Water Code Section 1206(a) the SWRCB is authorized, but not required, to cancel pending applications where inconsistent with conditions contained in the Declaration; previous Orders implement a procedure for disposition of such applications pending on the effective date of the Declaration.

The Order provides for reconsideration of the Order either upon petition of an interested party or upon the SWRCB's own motion.

6.3 FPUD Changes of Point of Diversion and Place of Use for Permit No. 11356

On November 20, 2001, the Chief of the Division of Water Rights of the SWRCB authorized an Order Approving Changes in Source Point of Diversion, Place of Use and Amending the Permit (No. 11356). The permit allows FPUD to divert and store up to 10,000 AF per year at Lake Skinner. The Court approved an Order Amending the Memorandum of Understanding and Agreement on Operation of Lake Skinner on February 16, 2005. The Amendment provides for such diversions from Lake Skinner after specified releases are made.

On December 18, 2009, FPUD filed a petition for a time extension for completion of beneficial use under Permit No. 11356. The petition was accepted and noticed by the SWRCB on February 23, 2009, and no protests were filed.

On May 25, 2012, the SWRCB issued Order WR 2012-0007-EXEC with an amended Permit No. 11356 extending the time to apply the water to full beneficial use by December 31, 2048.

6.4 Federal Reserved Water Rights for the Cahuilla and Ramona Indian Reservations

The Cahuilla and Ramona Indian Reservations are both located in the Anza area. The Court found in Interlocutory Judgment No. 41 that the United States reserved water rights for the reservations as specified below.

Order No. 3 in Interlocutory Judgment No. 41 specifies for the Cahuilla Indian Reservation the following:

> IT IS FURTHER ORDERED, ADJUDGED AND DECREED that the United States of America intended to reserve, and did reserve, rights to the use of the waters of the Santa Margarita River which under natural conditions would be physically available on the Cahuilla Indian Reservation, including rights to the use of ground waters, sufficient for the present and future needs of the Indians residing thereon with priority dates of December 27, 1875, for lands transferred by the Executive Order of that date; March 14, 1887, for lands transferred by the Executive Order of that date; December 29, 1891, for lands transferred by the Executive Order of that date.

Order No. 1 in Interlocutory Judgment No. 41 specifies for the Ramona Indian Reservation the following:

> IT IS ORDERED, ADJUDGED AND DECREED that the United States of America when it established the Ramona Indian Reservation intended to reserve and did reserve rights to the use of waters of the Santa Margarita River stream system which under natural conditions would be physically available on the Ramona Reservation, including rights to the use of ground waters, sufficient for the present and future needs of the Indians residing thereon with a priority date of December 29, 1891.

On October 6, 2006, the Cahuilla Band of Indians filed a Motion to Intervene as Plaintiff-Intervenor in *United States v. Fallbrook Public Utility District*, *et al*. The Cahuilla Band also filed a Complaint asking the Court to quantify its federal reserved water rights by confirming elements of the water rights as declared and decreed by the Court in Interlocutory Judgment No. 41. On October 16, 2006, the Ramona Band of Cahuilla filed a similar motion and Complaint. On January 22, 2007, the Court issued an Order granting the Motions to Intervene and filing the Complaints in Intervention. On February 25, 2009, the Court ordered the Cahuilla Band and Ramona Band as plaintiffs to serve by April 30, 2009, all water right holders subject to the Court's jurisdiction within the entire Watershed. Service was completed and the parties commenced settlement negotiations. On April 1, 2009, the Cahuilla and Ramona Bands filed motions to dismiss claims against certain downstream defendants and to file second amended complaints to limit the claims to the Anza-Cahuilla Groundwater Area. On April 29, 2009, the Court issued an Order granting the motions. The parties are progressing with settlement negotiations and Court proceedings for quantification of each Band's federal reserved water rights based on the Second Amended Complaints.

6.5 Federal Reserved Water Rights for the Pechanga Indian Reservation

The Court found in Interlocutory Judgment No. 41 that the United States reserved water rights for the Pechanga Indian Reservation in accordance with Order No. 7:

> IT IS FURTHER ORDERED, ADJUDGED AND DECREED that the United States of America intended to reserve, and did reserve, rights to the use of the waters of the Santa Margarita River stream system which under natural conditions would be physically available on the Pechanga Indian Reservation, including rights to the use of ground waters sufficient for the present and future needs of the Indians residing thereon with priority dates of June 27, 1882, for those lands transferred by the Executive Order of that date; January 9, 1907, for those lands transferred by the Executive Order of that date; August 29, 1893, for those lands added to the Reservation by Patent on that date; and May 25, 1931, for those lands added to the Reservation by Patent of that date.

In 1974, the Pechanga Band of Indians filed a Motion to Intervene as a Plaintiff-Intervenor in *United States v. Fallbrook Public Utility District*, *et al*., and in 1975 the Court granted the Motion. Rather than filing a complaint asking the Court to quantify its federal reserved water rights, the Pechanga Band partook in the process of resolving its claims to water rights in the SMRW through a comprehensive settlement agreement with the United States and principal water districts, including RCWD, EMWD, and MWD. On December 17, 2009, Pechanga and RCWD announced an agreement on a framework, developed with the assistance of MWD and the United States Federal Negotiating Team, to resolve Pechanga's water rights claims. On April 27, 2009, Pechanga and RCWD agreed to a Settlement Conceptual Agreement and on June 11, 2009, the RCWD Board approved the Settlement Conceptual Agreement. On November 16, 2009, the parties announced the Pechanga Water Rights Settlement Agreement was finalized. On December 11, 2009 and January 26, 2010, the Pechanga Indian Water Rights Settlement Act was introduced in the United States House of Representatives and Senate, respectively. The proposed legislation was reintroduced in the Senate on June 25, 2013, and in the House of Representatives on June 26, 2013. In 2015 and 2016, the parties continued negotiations for the settlement agreement and draft legislation in accordance with the February 26, 2015 guidance from the House Committee on National Resources and the Federal Criteria and Procedures. On February 3, 2016, Senate bill (S. 1983) was reported out of the Senate Committee on Indian Affairs. On June 23, 2016, a hearing on the proposed settlement was held before the House Natural Resources Subcommittee on Water, Power and Oceans. On November 29, 2017 the Pechanga Water Settlement Agreement was signed by the RCWD President, Pechanga Tribal Chairman, and the U.S. Secretary of the Interior. On June 18, 2018, the Court issued a judgment and decree adopting the Pechanga Band of Luiseño Mission Indians[2] Water Rights Settlement Agreement. As of October 1, 2020, the Pechanga Band of Luiseño Mission Indians[2] Water Rights Settlement Agreement is fully enforceable.

[2] The "Pechanga Band of Luiseno Mission Indians" is now known as the "Pechanga Band of Indians".

6.6 California Statewide Groundwater Elevation Monitoring Program

On November 6, 2009, the Governor for the State of California approved Senate Bill SBx7-6 Groundwater Elevation Monitoring (SBx7-6). SBx7-6 provides for a statewide program of reporting groundwater elevation data for groundwater basins and is implemented by the DWR. The program is referred to as the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. The Bill defines "basins" or "sub-basins" to mean a groundwater basin or sub-basin identified and defined in DWR Bulletin No. 118. Three such basins (plus a portion of a fourth basin) are identified in DWR Bulletin No. 118 for the SMRW:

1. Basin No. 9-4—Santa Margarita Valley Groundwater Basin (located in San Diego County on federal lands within CPEN).

2. Basin No. 9-5—Temecula Valley Groundwater Basin (located in Riverside County in the area including the cities of Murrieta and Temecula and the Pechanga Indian Reservation).

3. Basin No. 9-6—Cahuilla Valley Groundwater Basin (also known as the Anza-Cahuilla Groundwater Basin; located in Riverside County in the upper-most portion of the Watershed in the area within the town of Anza and the Cahuilla and Ramona Indian Reservations).

4. Basin No. 8-5—San Jacinto Groundwater Basin, Domenigoni Sub-basin (located in Riverside County in Domenigoni Valley which is southwest of Diamond Valley Lake).

SBx7-6 establishes a procedure for a Monitoring Entity to coordinate the monitoring activities for a basin and on September 24, 2012, RCWD was approved by DWR to become the Monitoring Entity for Basin No. 9-5 in the Temecula area. The monitoring plan was reviewed by the Watermaster and includes monitoring wells maintained by RCWD, WMWD, and the USGS with funding through the Watermaster budget.

On September 17, 2015, CPEN submitted a request to DWR to be the CASGEM Monitoring Entity for Basin No. 9-4, which is located on CPEN. On October 8, 2015, CPEN was designated as the Monitoring Entity for Basin No. 9-4. CPEN developed the CASGEM monitoring plan for Basin No. 9-4 in cooperation with San Diego County.

Presently, there is no CASGEM monitoring plan for Basin No. 9-6 but efforts are ongoing to establish the CASGEM Monitoring Entity and develop a CASGEM monitoring plan. EMWD is the approved Monitoring Entity for Basin No. 8-5.

Additional information regarding the CASGEM program, the approved monitoring plans, and groundwater monitoring data posted for Basin Nos. 8-5, 9-4, and 9-5 can be found at the following website:
https://water.ca.gov/Programs/Groundwater-Management/Groundwater-Elevation-Monitoring--CASGEM

6.7 Sustainable Groundwater Management Act

On September 16, 2014, Governor Brown signed the California Sustainable Groundwater Management Act (SGMA) that was established as part of a comprehensive three-bill package that includes AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley) to provide the framework for statewide groundwater management by local authorities. The state agencies charged with administration of the Act are both the DWR and the SWRCB.

SGMA pertains to all groundwater basins identified and defined in DWR Bulletin 118. However, SGMA includes an exemption for adjudicated basins as provided in §10720.8(a) that specifically lists the SMRW as an exempted adjudicated area. Thus, the four DWR Bulletin No. 118 basins located within the Watershed are not subject to the general requirements of SGMA. However, as specified in §10720.8(f), the Watermaster must comply with certain requirements under SGMA, including reporting to DWR commencing on or before April 1, 2016.

On March 23, 2016, in accordance with §10720.8, the Watermaster completed the required profile and initial submittal on the DWR SGMA Reporting for Adjudicated Areas Website for the SMRW adjudication. Additionally, as part of the required initial submittal, the Watermaster submitted to DWR a letter and DVD containing PDF files of the principal governing final judgments, orders, and decrees for the SMRW adjudication in *United States v. Fallbrook Public Utility District, et al*., Case No. 51-cv-1247-GPC-RBB. The submittal also contained copies of each of the annual reports prepared by the Watermaster under court order for submittal to the Court. These reports include the Annual Watermaster Report for 1989 through 2014 and the Annual CWRMA Report for 2011 through 2014. The SGMA Reporting for Adjudicated Areas Website can be found at the following website: *https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Adjudicated-Areas*

As part of the annual reporting requirements, the Watermaster will submit to DWR copies of the Annual Watermaster Report and the Annual CWRMA Report to provide information for the DWR Bulletin No. 118 basins within the Watershed. Groundwater monitoring data for the basins under the CASGEM Program fulfills a portion of the reporting requirements specified in §10720.8(f)(3)(A).

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SECTION 7 - WATER PRODUCTION AND USE

7.1 General

Water production and use data were obtained from several types of substantial users including water purveyors, Indian Reservations, mobile home parks and private landowners. Private landowners who qualify as substantial water users are those who irrigate eight or more acres or who produce or use an equivalent quantity of water.

Major water purveyors, who reported production and use data in 2022-23, are listed as follows:

Anza Mutual Water Company
Eastern Municipal Water District
Elsinore Valley Municipal Water District
Fallbrook Public Utility District
Lake Riverside Estates
Metropolitan Water District of Southern California
Rainbow Municipal Water District
Rancho California Water District
U. S. Marine Corps, Camp Pendleton
U.S. Naval Weapons Station Seal Beach, Detachment Fallbrook
Western Municipal Water District

Lake Riverside Estates is listed with major water purveyors although it does not deliver water to customers. However, it does produce make-up water for losses from Lake Riverside.

In addition to the major purveyors, there are a number of smaller water systems in the Watershed. Of these, Quiet Oaks Mobile Home Park, Jojoba Hills SKP Resort, Rancho California Outdoor Resorts, Cottonwood Elementary, and Hamilton Schools are substantial users.

Three Indian Reservations, the Cahuilla, Pechanga, and Ramona, are noted in Interlocutory Judgment No. 41, the Judgment that pertains to Water Rights on Indian Reservations in the Watershed. Estimates and/or measurements of water production and use are reported for the Cahuilla, Pechanga, and Ramona Indian Reservations.

A portion of a fourth Reservation, the Pauma Mission Reserve Tract of the Pauma Yuima Band of Luiseño Mission Indians, is also located within the Watershed. However, this Reservation was not included in Interlocutory Judgment No. 41.

The final category of water users is private landowners who use water primarily for irrigation.

The water use data collected for 2022-23 is summarized on Table 7.1. Total imported supplies plus local production totaled 81,439 AF compared to 98,092 AF reported in 2021-22. Of that quantity, 18,737 AF were used for agriculture; 12,428 AF were used for commercial purposes; 39,925 AF were used for domestic purposes; 4.7 AF were discharged to Temecula Creek; 6.2 AF were discharged to Murrieta Creek; and 3,099 AF were discharged by RCWD during 2022-23, pursuant to the CWRMA. It is noted, the commercial use for Pechanga includes 456 AF of recycled water and thus this amount is double counted on Table 7.1 relative to production from the SMRW. Actual commercial use of production from the Watershed is 11,972 AF, reflecting the reduction of 456 AF of recycled water used by Pechanga. In order for the totals to balance on Table 7.1, the 456 AF of recycled water is subtracted from the indicated loss for Pechanga as reflected in Footnote 14 for Table 7.1.

The overall system loss was 4,555 AF, or about 5.6% of total production. System gain or loss is the result of many factors including errors in measurement, differences between periods of use and periods of production, leakage and unmeasured uses.

Monthly production and use data for major water purveyors are found in Appendix A. Uses are listed under agricultural, commercial and domestic categories. The definition of agricultural, commercial and domestic uses varies for the different purveyors in the Watershed. The definitions for agricultural, commercial and domestic uses have varied over the years for the different purveyors in the Watershed. Water use definitions for all major water purveyors were updated and reconciled for WY 2014. The reconciliation resulted in near uniformity in water use definitions among the major water purveyors. Accordingly, definitions of these uses for major water purveyors are shown on Table 7.2. Similar data for WYs 1966 through 2023 are summarized in tables presented in Appendix B. As noted above, water use definitions were updated in WY 2014 and thus water use reported for certain purveyors for prior years on the Appendix B tables can vary significantly as compared to the use categories for 2022-23. The reader is referred to Table 7.2, published in each annual report, to determine the particular use definitions for any particular year in question. Appendix C presents information on substantial users outside purveyor service areas.

7.2 Water Purveyors

7.2.1 Anza Mutual Water Company

Anza Mutual Water Company's service area is in the eastern part of the Watershed in the Anza Valley. Production is from two wells: Well No. 1 drilled in 1951 and perforated from 20 feet to 260 feet; and Well No. 2 drilled later to a depth of 287 feet and perforated in the bottom 130 feet. Production for 2022-23 was approximately 37.63 AF from Well No. 1 with no reported production from Well No. 2. Water levels in Well No. 1 increased by 29.6 feet during 2022-23.

TABLE 7.1

SANTA MARGARITA RIVER WATERSHED
WATER PRODUCTION AND USE
2022-23
Quantities in Acre Feet[1/]

	PRODUCTION			USE 2/					
	WELL/ SURFACE	IMPORT	TOTAL	AG	COMM	DOM	LOSS	TOTAL	WATER RIGHT
WATER PURVEYORS									
Anza Mutual Water Company	38	0	38	0	0	34	4 3/	38	Appropriative
Eastern MWD	0	13,718	13,718	201	2,605	10,226	686	13,718	Appropriative
Elsinore Valley MWD	0	5,200	5,200	4	1,039	4,090	68	5,200	---------
Fallbrook PUD	2,051	896	2,947	984	185	1,286	491	2,947	Appropriative
Lake Riverside Estates	289	0	289	0	289 4/	0	0	289	Appropriative
Metropolitan Water District	0	925 16/	925	925	0 5/	0	0	925	---------
Murrieta Division of Western MWD	567	1,452	2,019	0	547	1,247	225	2,019	Appropriative
Rainbow MWD	0	776	776	555	26	143	52	776	---------
Rancho California WD	15,275 6/	28,481 7/	43,756	11,792	6,653	20,457	4,853 8/	43,756	Various
U.S.M.C. - Camp Pendleton	6,482	0	6,482	0	------ 10/	2,146	4,336 3/ 11/	6,482	Appropriative/ Riparian/Pre-1914
U.S. Naval Weapons Station	0	35	35	0	------ 10/	31	3 3/	35	---------
Western MWD Improvement Dist. A Through Rancho California WD	0	25	25	0	23	0	3 3/	25	---------
INDIAN RESERVATIONS									
Cahuilla	107	0	107	18 17/	25 18/	64	0	107	Overlying/Reserved
Pechanga	536	0	536	0	844	125	(434) 14/	536	Overlying/Reserved
Ramona	5	0	5	0	0	5	0	5	Overlying/Reserved
SMALL WATER SYSTEMS									
Quiet Oaks Mobile Home Park	16	0	16	0	0	14	2 3/	16	Riparian/Overlying
Outdoor Resorts	185	0	185	0	165	19	2 3/	185	Overlying
Jojoba Hills SKP Resort	43	0	43	0	0	39	4 3/	43	Overlying
Cottonwood Elementary	10	0	10	0	9	0	1 3/	10	Overlying
Hamilton Schools	19	0	19	0	17	0	2 3/	19	Overlying
OTHER SUBSTANTIAL USERS	4,310 12/	0	4,310	4,259	0	0	51 13/	4,310	
TOTAL	**29,930**	**51,509**	**81,439**	**18,737**	**12,428**	**39,925**	**10,349 15/**	**81,439**	

1/ Totals may not add due to rounding.
2/ Water use definitions for all major water purveyors were updated and reconciled for WY 2014. The updated definitions are provided in Table 7.2.
3/ Assumes 10% system loss.
4/ Recreational Use.
5/ Construction use at Diamond Valley Lake.
6/ Includes 15,411 AF of native production (including releases to stream) minus 136 AF exported to the San Mateo Watershed.
7/ Includes 11,124 AF direct use; 14,528 AF VDC recharge/cyclic; 3,099 AF from MWD WR-34; minus 270 AF export, rounded.
8/ Includes 4.7 AF discharged into Temecula Creek, 6.2 AF into Murrieta Creek, 3,099.2 AF discharged into SMR from MWD WR-34, 789.6 AF from the potable connection at WR-34, (1,748) AF of import remaining in storage, and a system loss of 2,702 AF, rounded.
9/ Listed with Agricultural use.
10/ Listed with Domestic use.
11/ Includes exports of 3,291 AF, brine production of 807 AF and a system loss of 238 AF, rounded.
12/ Includes 511 AF for surface diversion plus 3,906 AF from groundwater as shown in Appendix C, minus 107 AF on the Cahuilla Reservation, rounded.
13/ Loss is equal to 10% of surface diversions.
14/ Includes a system loss of 22 AF, minus 456 AF of reclaimed wastewater from EMWD (rounded), accounted for on Table A-1. See Table A-5 for Pechanga production and use.
15/ Includes an overall system loss of 4,555 AF. Overall system loss is calculated by estimating the traditional system loss of comparing total production versus total use for each water purveyor.
16/ An additional 223 AF were released by MWD from Lake Skinner into Tucalota Creek for groundwater replenishment and maintenance purposes.
17/ Stock Watering
18/ Includes approximately 7 AF for dust control, 8 AF for watering of turf grass, and 10 AF for casino purposes.

TABLE 7.2

SANTA MARGARITA RIVER WATERSHED
DEFINITIONS OF WATER USE
BY MUNICIPAL WATER PURVEYORS

DISTRICT	AGRICULTURAL	DOMESTIC	COMMERCIAL
EASTERN MUNICIPAL WATER DISTRICT	Row crops, orchards, vineyards, sod farms, other commercially grown crops, dairies, horse ranches and other agricultural users, including agricultural allocation for agricultural/domestic meters	Single family and multi-family residential connections, including domestic allocation for agricultural/domestic meters	All other usage including commercial, industrial, institutional, golf courses, parks, recreation, landscaping, temporary and construction
ELSINORE VALLEY MUNICIPAL WATER DISTRICT	Same as EMWD	Same as EMWD	Same as EMWD
FALLBROOK PUBLIC UTILITY DISTRICT	Same as EMWD	Single family and multi-family residential connections, including first 20,000 gallons for agricultural/domestic meters	Same as EMWD
PECHANGA INDIAN RESERVATION	Same as EMWD	Same as EMWD	All other usage including resort, on-Reservation businesses, tribal facilities, commercial, industrial, institutional, golf courses, parks, recreation, landscaping, temporary and construction
RAINBOW MUNICIPAL WATER DISTRICT	Same as EMWD	Single family and multi-family residential connections, including first 19,448 gallons for agricultural/domestic meters	Same as EMWD
RANCHO CALIFORNIA WATER DISTRICT	Same as EMWD	Single family and multi-family residential connections, including first 1,600 cubic feet for agricultural/domestic meters	Same as EMWD
MURRIETA DIVISION OF WESTERN MUNICIPAL WATER DISTRICT	Same as EMWD	Same as EMWD	Same as EMWD
USMC, CAMP PENDLETON	Same as EMWD	Camp Supply - All usage except agricultural	Reported under Camp Supply

Interlocutory Judgment No. 33 divides aquifers in Anza Valley into two categories: the shallow aquifer and the deep aquifer. Based on information available to the Court, the shallow aquifer was determined to include the younger and older alluvial deposits in the Anza Groundwater Basin and extend to a maximum but variable depth of approximately 100 feet. The deep aquifer underlies the shallow aquifer in an area about one-half mile in width and two miles in length, within portions of Sections 16, 17, 21, 22, 27 and 28 of Township 7 South, Range 3 East, SBM. Anza Mutual Water Company's wells are within the area of the deep aquifer. From the perforated intervals in the wells, it may be concluded that most of the production from Well No. 1 and all of the production from Well No. 2 are from the deep aquifer. Interlocutory Judgment No. 33 concluded that waters contained in the deep aquifer did not add to, support or contribute to the SMR stream system and were, therefore, declared to be outside the Court's jurisdiction.

Accordingly, some of the water produced by the Anza Mutual Water Company is outside the Court's jurisdiction. The portion pumped from the shallow aquifer in Well No. 1 is pumped under a groundwater appropriative right. Data for WYs 1989 through 2023 are shown on Appendix Table B-12.

7.2.2 Eastern Municipal Water District

EMWD is a member agency of MWD and its service area includes a portion of the RCWD and the Murrieta Division of WMWD. Within the Watershed, EMWD wholesales water to those districts and retails water directly to consumers. Water sold to RCWD and the Murrieta Division of WMWD is not listed in this report as imported water to EMWD.

EMWD's service area outside RCWD and the Murrieta Division of WMWD is located in the northern part of the Watershed. Water for EMWD's retail service area is all imported with no groundwater production during 2022-23.

Imports, not including water wholesaled to RCWD or the Murrieta Division of WMWD, or delivered to EVMWD, totaled 14,451 AF. A portion of that import, amounting to 733 AF, was exported from the SMRW for delivery to EMWD's retail customers located outside the Watershed, resulting in net import to the Watershed of 13,718 AF. These data are shown on Appendix Table A-1.

In addition to importing fresh water, EMWD also reclaims wastewater at its TVRWRF. Disposition of wastewater from the TVRWRF service area for WYs 2022 and 2023 is shown below:

Use	WY 2022 Quantity AF	WY 2022 Percent %	WY 2023 Quantity AF	WY 2023 Percent %
Reuse in SMRW	3,557	23.4	2,277	13.6
Reuse outside SMRW	4,888	32.2	3,192	19.1
Subtotal	8,445	55.7	5,469	32.7
Discharge to Dissipater at Temescal Creek	0	0	4,912	29.3
Other	6,728	44.3	6,355	38.0
TOTAL	15,173	100.0	16,736	100.0

It can be noted that the quantities of recycled water used within the SMRW decreased from 3,557 AF in WY 2022 to 2,277 AF in WY 2023. During the same period, reuse outside the SMRW decreased from 4,888 AF to 3,192 AF. In 2022-23, it may be concluded that 13.6% of the recycled water was used in the Watershed and 19.1% was used outside the Watershed. The quantity of wastewater discharged to the dissipater at Temescal Creek increased from 0 AF to 4,912 AF during 2022-23. The Other use decreased from 6,738 AF to 6,355 AF. This Other use includes changes of storage in Winchester and Sun City storage ponds, as well as evaporation and percolation losses.

Due to concerns about the potential export of native Santa Margarita water, the sources of water supply to the TVRWRF service area were determined and are shown on Table 7.3. In 2022-23, about 21.3% of the supply to the service area was native. Thus, the percentage of native supply was greater than the percentage of wastewater reused within the SMRW, and on a proportional basis there was some export of native waters.

On August 4, 2009, a Judgment was entered in *United States and Fallbrook Public Utility District v. Eastern Municipal Water District and Rancho California Water District* (CV 04-8182 CBM (RNBx), United States District Court, Central District of California) pertaining to the contractual obligations of the 1990 Four Party Agreement and the export of treated wastewater from the SMRW. On May 17, 2011, the United States Court of Appeals for the Ninth Circuit issued an Order granting the parties' joint motion to dismiss the appeals in this matter and thus the August 4, 2009 Judgment stands. For purposes of this annual report the export of treated wastewater will be reported consistent with prior annual reports with no changes pursuant to the Judgment.

Estimates of water production and use for EMWD for the period 1966 through 2023 are shown on Appendix Table B-1.

TABLE 7.3

SANTA MARGARITA RIVER WATERSHED
WATER DELIVERIES TO TEMECULA VALLEY
REGIONAL WATER RECLAMATION FACILITY SERVICE AREA

	2019		2020		2021 5/		2022		2023	
Eastern MWD	AF	%	AF	%	AF	%	AF	%	AF	%
Deliveries to TVRWRF Service Area										
1. Native Water 4/	0		0		0		0		0	
2. Import	13,453		14,606		16,549		15,958		13,718	
3. Total	13,453		14,606		16,549		15,958		13,718	
Rancho California WD										
Deliveries to TVRWRF Service Area										
1. Native Water 1/, 4/	6,218		5,851		6,680		5,150		6,200	
2. Import 2/	10,359		11,196		12,005		12,486		9,176	
3. Total 3/	16,577		17,048		18,686		17,636		15,377	
Total Deliveries to TVRWRF Service Area										
1. Native Water 4/	6,218	20.7%	5,851	18.5%	6,680	19.0%	5,150	15.3%	6,200	21.3%
2. Import	23,812	79.3%	25,802	81.5%	28,554	81.0%	28,444	84.7%	22,895	78.7%
3. Total	30,030	100.0%	31,654	100.0%	35,235	100.0%	33,594	100.0%	29,095	100.0%

1/ Based on the ratio of native water to total production in Rancho Division of RCWD.
2/ Based on the ratio of import to total production in Rancho Division of RCWD.
3/ Total RCWD deliveries in TVRWRF Service Area.
4/ Beginning in WY 2019, Native Water defined as groundwater and surface water produced.
5/ Revised

7.2.3 Elsinore Valley Municipal Water District

EVMWD provides water to its service area around Lake Elsinore, a portion of which is within the SMRW. EVMWD obtains its supply from ten wells, all located outside the Watershed, and imports MWD water through EMWD and WMWD. It is noted, EVMWD is currently constructing a well located within the Santa Margarita River Watershed, although production from this well has been deemed by the Court to be outside of jurisdiction.

As shown on Appendix Table A-2, EVMWD reports for 2022-23 that 5,200 AF were imported into the portion of its service area that is inside the Watershed, and 969 AF of wastewater were exported from that same area. In 2013-14, EVMWD began using recycled water treated at the RCWD Santa Rosa Water Reclamation Facility via the EMWD Palomar Pipeline through a wheeling agreement. In 2022-23, a total of 337 AF of recycled water were received via EMWD and 78 AF were used within the Watershed.

Production and use for EVMWD for the period 1966 through 2023 are shown on Appendix Table B-2.

7.2.4 Fallbrook Public Utility District

The FPUD service area is located in both the San Luis Rey River and SMR watersheds. In 2022-23, FPUD imported a total of 3,978 AF, as shown on Appendix Table A-3. FPUD has three wells within the SMRW; however, in 2022-23, there was no production from these wells. FPUD received 2,520 AF of CUP deliveries from CPEN during WY 2023. Additionally, in 2022-23, FPUD reported no diversions from Lake Skinner, under Permit No. 11356, resulting in a total district-wide production of 6,498 AF. The total production for the portion of FPUD service area that is within the Watershed, as shown on Appendix Table A-3, is 2,947 AF, or about 45.4% of the total district wide production.

In 2022-23, FPUD treated 635 AF (865 AF minus 230 AF of brine) of wastewater from areas served within the Watershed, of which 12 AF were reused in the Watershed. The wastewater production and distribution for 2022-23 is shown on Appendix Table A-3.

Production during the period 1966 through 2023 included direct diversions from the SMR prior to 1972, as well as imported water and well production, as shown in Appendix B. During WY 2011, FPUD revised its reporting methods for both water production and wastewater operations. The historical water production and use for the period 1966 through 2010 are provided on Appendix Table B-3.1 reflecting prior reporting methods, particularly for previous estimates associated with the DeLuz portion of the service area. Appendix Table B-3.2 is provided to show the current water production and use reflecting the revised reporting methods. The revised reporting methods include metered deliveries for the reported uses within the Watershed and application of a district-wide loss factor.

The FPUD wastewater production and distribution for the period 1966 through 2023 are shown on Appendix Table B-4.

7.2.5 Lake Riverside Estates

Lake Riverside Estates pumps water from Well No. 7S/2E-32C1, into Lake Riverside to replace evaporation losses. Production for 2022-23 was approximately 289 AF as shown on Appendix Table A-11. The production well was drilled in 1962 and is located in an area of younger alluvium in the Cahuilla Groundwater Basin. The well was drilled to a depth of 338 feet.

Interlocutory Judgment No. 33 indicates that the owners of lands in the Cahuilla Groundwater Basin have correlative overlying rights to the use of the groundwater that is the basis for this production. Data for Lake Riverside Estates for the period 1989 through 2023 are shown on Appendix Table B-12.

7.2.6 Metropolitan Water District of Southern California

Pursuant to a Court Order, MWD imported 925 AF of water into the SMRW for irrigation of lands in Domenigoni Valley in 2022-23. MWD did not import any water for groundwater recharge and there was no water used for construction purposes. As previously noted, the groundwater in the Domenigoni Valley groundwater basin is outside this Court's jurisdiction when groundwater levels are below elevation 1,400 feet. This production is shown on Appendix Table A-4, and production for the period 1966 through 2023 is shown on Appendix Table B-5.

7.2.7 Rainbow Municipal Water District

RMWD is located in San Diego County in the south-central part of the Watershed. In 2022-23, the District imported a total of 10,890 AF of water as shown on Appendix Table A-6. However, most of the District is in the San Luis Rey River Watershed and only about 7.1% of the District's imported supply was delivered to the portion of the service area inside the SMRW. As shown on Appendix Table A-6, total deliveries of imported water in the SMRW in 2022-23 amounted to 776 AF.

RMWD import production for the period 1966 through 2023 is shown on Appendix Table B-7.

7.2.8 Rancho California Water District

RCWD serves water to an approximate 99,600-acre service area in the central portion of the Watershed. RCWD produced water from 45 wells in 2022-23, and imported water as shown on Appendix Table A-7. Use is shown under the categories of agriculture, commercial and domestic. In 2022-23, well production of native water included 15,411 AF from the Murrieta-Temecula Groundwater Area. A portion of the production amounting to 136 AF was exported for use in the San Mateo Watershed, resulting in a net well production of 15,275 AF (including 11 AF of stream releases and 142 AF of Vail recovery).

Import supplies totaled 28,751 AF of which 11,124 AF were used for direct use; 14,528 AF were recharged; and 3,099 AF were discharged by RCWD to the SMR from MWD Service Connection WR-34 during 2022-23, pursuant to the CWRMA. A portion of

that import amounting to 270 AF was exported from the SMRW to the San Mateo Watershed, resulting in net import to the Watershed of 28,481 AF.

During 2022-23, RCWD use totaled 43,756 AF including 11,792 AF for agriculture; 6,653 AF for commercial; 20,457 AF for domestic; 3,900 AF were released into Temecula Creek, Murrieta Creek, and the SMR; and 2,702 were system loss.

In 2022-23, RCWD did not export reclaimed wastewater from the Watershed via EMWD's Palomar Valley Pipeline.

RCWD produces groundwater under a variety of rights as follows:

1. Recovery of water appropriated at Vail Lake
2. Recovery of import return flows and directly recharged imported water
3. Groundwater appropriative rights
4. As agent on behalf of overlying landowners

Vail Appropriation

RCWD's Vail Dam appropriative rights are described in Application No. 11518 as amended on June 17, 1947, and in Permit 7032 originally issued on February 18, 1948. Permit 7032 was subsequently amended on July 28, 1971, and April 22, 2009. The water right provides that RCWD may store up to 40,000 AF in Vail Lake each year between November 1 and April 30, subject to applicable limitations. The water stored may be used for recreational uses at Vail Lake and municipal, domestic, industrial, and irrigation uses within the entire service area of RCWD. Such uses may be by direct diversion from Vail Lake or by recovery of water released from Vail Lake and spread downstream in Pauba Valley. Points of re-diversion for recovery from underground storage are permitted for 12 production wells: RCWD Wells 109, 110, 123, 132, 152, 153, 157, 158, 210, 232, 233, and 234. It is noted, Wells 110 and 210 have been replaced by Wells 164 (February 2015) and 236 (August 2017), respectively.

There were 142 AF of releases from Vail Lake during 2022-23 for groundwater recharge. Releases from Vail Lake for groundwater recharge for the period 1980 through 2023 are shown on Appendix Table B-8.

It is noted, with the issuance of the amended Permit 7032 in 2009, the place of use, purposes of use, and permitted points of re-diversion were changed. Accordingly, the reporting of Permit 7032 operations was modified to reflect the changed conditions. Table 7.4 was modified in 2009 to reflect the changes subject to further refinement as part of the update of the CWRMA groundwater model. The reporting on Table 7.4 reflects the assumption that all water released from Vail Lake for recharge is recovered by pumping from the permitted recovery wells.

TABLE 7.4

SANTA MARGARITA RIVER WATERSHED
RANCHO CALIFORNIA WATER DISTRICT
PERMIT 7032 OPERATIONS
2022-23
Quantities in Acre-Feet

Diversion to Storage in Vail Lake [1/]	9,989
Release to Groundwater Storage [1/]	142
Recovery from Groundwater Storage [2/ 3/]	142
Vail Recharge Account Balance from 2021-22	54,927
Release minus Recovery	0
Vail Recharge Account Balance for 2022-23	54,927

1/ See Table 3.3.
2/ Permitted Points of Re-Diversion RCWD Wells 109, 110, 123, 132, 152, 153, 157, 158, 210, 232, 233, and 234.
3/ Total pumping from Vail recovery wells is greater than amount shown as recovered under Permit 7032. See Table 7.8 for total pumping from applicable Vail recovery wells.

Imported Water Return Flows

Return flows for 2022-23, based on imported water use in the Rancho Division and Santa Rosa Division are shown on Tables 7.5 and Table 7.6, respectively.

In the following tables, imported water is allocated to agricultural, commercial and domestic uses in each of eight applicable hydrogeologic areas in the Rancho Division service area and three applicable hydrogeologic areas in the Santa Rosa Division service area. This allocation is the proportion of the total deliveries to each use that is made up of imported water. For 2022-23, 63.0% of the supply to the Rancho Division was imported and 65.8% of the supply to the Santa Rosa Division was imported. Percentages are based on the proportion of Total Import Use to Total Use, as shown on Tables 7.5 and 7.6.

In general, the Santa Rosa Division does not overlie the groundwater area. However, there are several areas classified as being in the Santa Rosa Division that do overlie the groundwater area and generate return flows from imported supplies. Data from most of these lands have been reported since December 1991.

The percentage of imported water that becomes return flow varies according to the use as follows:

Agricultural Use	18%
Commercial Use	13%
Domestic Use	12%

Based on the foregoing factors, the total return flow credit for 2022-23 is computed to be 2,074.03 AF for the Rancho Division and 1,338.48 AF for the Santa Rosa Division, as shown on Tables 7.5 and 7.6, respectively.

Some of the hydrogeologic areas overlie older alluvium and some overlie younger alluvium. Comparison of exposures of younger alluvium with maps of RCWD's hydrogeologic areas indicate that the Santa Gertrudis, Pauba, a portion of North Murrieta and half of the Murrieta-Wolf areas overlie younger alluvium. The areas of the Santa Rosa Division that overlie the groundwater area in the younger and older alluvium varies and are identified on Table 7.6. Import return flows in these areas can be credited against pumping from the younger alluvium. The credits for 2022-23 are 469.96 AF for the Rancho Division and 38.85 AF for the Santa Rosa Division, as shown on Tables 7.5 and 7.6, respectively. The total return flow credit for 2022-23 to offset younger alluvium production in future years is 508.81 AF.

TABLE 7.5

SANTA MARGARITA RIVER WATERSHED
RANCHO CALIFORNIA WATER DISTRICT
RETURN FLOW CREDIT
2022-23
RANCHO DIVISION
Quantities in Acre Feet

	HYDROGEOLOGIC AREAS									
	0 NO HYDRO-GEO CODE	1 MURRIETA WOLF 1/2 QYAL 1/2 QTOAL	2 SANTA GERTRUDIS QYAL	3 LOWER MESA QTOAL	4 PAUBA QYAL	5 SOUTH MESA QTOAL	6 UPPER MESA QTOAL	7 PALOMAR QTOAL	8 NORTH MURRIETA 1/4 QYAL 3/4 QTOAL	TOTAL
AGRICULTURAL										
Total Use	917.33	5.19	0.00	21.76	386.75	61.45	940.76	693.68	0.00	3,026.92
% Import	62.83	62.74	0.00	22.04	25.67	0.00	0.00	62.87	0.00	
Import Use	576.36	3.25	0.00	13.55	241.48	38.93	592.37	436.09	0.00	1,902.03
% Credit	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	
Credit	103.74	0.59	0.00	2.44	43.47	7.01	106.63	78.50	0.00	342.37
COMMERCIAL										
Total Use	177.74	1,316.40	1,026.45	1,785.20	383.02	401.52	168.26	40.48	1.91	5,300.99
% Import	62.61	63.12	63.23	62.81	63.44	62.57	61.91	62.88	63.67	
Import Use	111.29	830.92	649.03	1,121.26	242.99	251.23	104.17	25.45	1.22	3,337.57
% Credit	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	
Credit	14.47	108.02	84.37	145.76	31.59	32.66	13.54	3.31	0.16	433.88
DOMESTIC										
Total Use	905.58	1,958.61	1,829.72	7,515.66	566.82	2,879.72	1,158.25	326.46	0.00	17,140.83
% Import	63.00	63.20	63.28	63.07	63.18	63.13	62.75	63.01	0.00	
Import Use	570.51	1,237.80	1,157.89	4,740.22	358.13	1,817.86	726.77	205.70	0.00	10,814.87
% Credit	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	
Credit	68.46	148.54	138.95	568.83	42.98	218.14	87.21	24.68	0.00	1,297.78
TOTAL USE	2,000.65	3,280.20	2,856.18	9,322.62	1,336.59	3,342.69	2,267.28	1,060.62	1.91	25,468.74
TOTAL										
Total Import Use	1,258.16	2,071.98	1,806.92	5,875.03	842.60	2,108.02	1,423.31	667.25	1.22	16,054.48
Total Credit	186.67 *	257.14	223.32	717.03	118.03	257.81	207.38	106.49	0.16	2,074.03
Total Credit Qyal		128.57	223.32		118.03				0.04	469.96
Total Credit Qtoal		128.57		717.03		257.81	207.38	106.49	0.12	1,417.40

* This credit not applied to either Qyal or Qtoal

TABLE 7.6

SANTA MARGARITA RIVER WATERSHED
RANCHO CALIFORNIA WATER DISTRICT
RETURN FLOW CREDIT
2022-23
SANTA ROSA DIVISION
Quantities in Acre Feet

	HYDROGEOLOGIC AREAS				
	0 No HYDRO- GEO CODE	1 MURRIETA WOLF 1/2 QYAL 1/2 QTOAL	2 SANTA GERTRUDIS 2/3 QYAL 1/3 QTOAL	8 NORTH MURRIETA 1/4 QYAL 3/4 QTOAL	TOTAL
AGRICULTURAL					
Total Use	8,765.14	0.00	0.00	0.00	8,765.14
% Import	65.55	0.00	0.00	0.00	
Import Use	5,745.94	0.00	0.00	0.00	5,745.94
% Credit	16.00	18.00	18.00	18.00	
Credit	976.81	0.00	0.00	0.00	976.81
COMMERCIAL					
Total Use	462.45	1.49	0.15	888.36	1,352.45
% Import	66.79	64.33	68.22	65.84	
Import Use	308.88	0.96	0.10	584.89	894.84
% Credit	11.00	13.00	13.00	13.00	
Credit	37.07	0.12	0.01	76.04	113.24
DOMESTIC					
Total Use	2,323.41	0.00	0.00	992.99	3,316.41
% Import	66.26	0.00	0.00	66.38	
Import Use	1,539.44	0.00	0.00	659.13	2,198.57
% Credit	10.00	12.00	12.00	12.00	
Credit	169.34	0.00	0.00	79.10	248.43
TOTAL USE	11,551.00	1.49	0.15	1,881.35	13,433.99
TOTAL					
Total Import Use	7,594.26	0.96	0.10	1,244.02	8,839.34
Total Credit	1,183.21 *	0.12	0.01	155.13	1,338.48
Total Credit Qyal		0.06	0.01	38.78	38.85
Total Credit Qtoal		0.06	0.00	116.35	116.42

* This credit not applied to either Qyal or Qtoal

RCWD imported an additional 14,528.3 AF of water for direct groundwater recharge in 2022-23. The total amount of imported recharge water that was recovered in 2022-23 was approximately 16,276.3 AF. Thus, 1,748.0 AF of recovered water were derived from groundwater storage (previously imported).

Cyclic Storage

Beginning in October 2017, RCWD initiated a Cyclic Storage program with EMWD and MWD. The agreement allows MWD to deliver water to the groundwater basin in advance of demand for the water by EMWD and its member agency RCWD. At the beginning of 2022-23, the cyclic account carryover contained 3,267 AF. In 2022-23, no water was imported and stored in the basin under the cyclic agreement. During 2022-23, a total of 1,748 AF of previously banked water was produced. Therefore, the amount of banked water remaining in storage under the cyclic agreement is 1,519 AF.

Cyclic Storage water carryover to 2022-23 includes the following:

		AF[1/]
1.	Carryover from 2021-22	3,267
2.	Cyclic water imported and banked in 2022-23	0
3.	Cyclic water recovered in 2022-23	(1,748)
4.	Total carryover at end of 2022-23	1,519

1/ Totals may not add due to rounding.

Division of Local Water

During 2022-23, RCWD pumped 31,844.2 AF of groundwater, comprised of 15,567.9 AF of local water (native alluvium and Vail recovery) and 16,276.3 AF of recovered import water (recharged and Cyclic Withdraw). The groundwater is pumped from both the younger alluvium and the older alluvium. The Court determined that water in both the younger alluvium and older alluvium adds to, contributes to, and supports the SMR stream system. The primary reason for differentiating between younger alluvium and older alluvium production is that, in California, production from the younger alluvium is generally considered to be governed by water rights that apply to the regulation of surface waters. Production from the older alluvium is generally considered to be governed by regulations that apply to groundwater. Of the 15,567.9 AF of local water, 140.42 AF were delivered to the Pechanga Indian Reservation under the terms of the Wolf Valley Groundwater Management Agreement. This production is shown on Appendix Table A-5.

During joint development of a groundwater model of the area it was necessary to develop estimates of the transmissivity for each aquifer. These estimates were based on pumping tests. The resulting transmissivity values were then used to estimate the relative groundwater production from each aquifer. For RCWD wells, the percent production estimated to originate in the younger alluvium is shown on Table 7.7.

Production from the younger alluvium and older alluvium for 2022-23, using the percentages noted on Table 7.7 is presented on Table 7.8. In 2022-23, 13,853.8 AF were pumped from the younger alluvium and 17,990.4 AF were pumped from the older alluvium. The production of 13,853.8 AF from the younger alluvium, as shown on Table 7.8 may be accounted as the recovery of 13,853.8 AF of direct import recharge. The production of

17,990.4 AF from the older alluvium, as shown on Table 7.8, may be accounted as the recovery of 15,570.2 AF of local water (native groundwater and Vail recovery, when applicable), 672.2 AF of direct import recharge, and 1,748.0 AF of Cyclic Storage.

The import water carryover account balance is currently being evaluated for refinement. Elements that are used to determine the amount of import water carryover include import water carryover from the previous year, unrecovered recharge of import water (not including Cyclic Storage or Banked water), import return flows, and the recovery of import return flows. The updated accounting is expected to be included in future Annual Reports.

TABLE 7.7

SANTA MARGARITA RIVER WATERSHED

PERCENT PRODUCTION FROM YOUNGER ALLUVIUM IN RANCHO CALIFORNIA WATER DISTRICT WELLS

RCWD WELL NO.	LOCATION TOWNSHIP/ RANGE/ SECTION	PERFORATED INTERVAL FEET	YOUNGER ALLUVIUM FEET	PERCENT YOUNGER ALLUVIUM %	REMARKS
106	7S/3W-26R1	130-210; 250-310; 340-440; 700-740; 780-980	0	0.0%	No. 108 Winchester, clay 0'-40'
107	7S/3W-26J1	60-120; 190-260; 280-300; 390-590	58	0.0%	No. 105 - gravel & clay 58'-84'
108	7S/3W-25E1	60-110; 190-280; 350-410; 430-450; 470-490; 530-590	55	0.0%	Formerly No. 109 gravel/sandy clay 55'-70'
109	8S/2W-17J1	70-150; 170-210	145 1/	84.0%	Brown clay and gravel 75' to 105'
110	8S/1W-6K1	75-155	165	97.0%	Clay 165'-190'. Prior to 10/23/97 perf int. 70-150; 200-240; 320-380; 420-460
113	7S/2W-25H1	96-136; 275-462; 482-542	Shallow	0.0%	
116	8S/1W-6J	60-120; 140-200; 220-260; 270-330; 370-390	150	94.0%	Clay 150'-170'
119	8S/2W-19J	170-260; 300-470		0.0%	Perforated below 170'
123	8S/1W-7B	100-260; 300-380; 420-500	125 1/	65.0%	Brown Sand Clay 135'-210'
129	7S/2W-20L	180-290; 416-480; 520-600	Shallow	0.0%	Qyal very shallow along Santa Gertrudis Creek
132	8S/1W-7D	70-390; 430-500	135	82.0%	Brown Clay Streaks 135'-175'
135	7S/3W-27M10	70-170	50	0.0%	Silty clay 50'-69'
141	8S/2W-11P	120-190; 215-235; 270-380; 430-510	104 1/	0.0%	Silt & sand 104'-185'; Well 11L1 is 112'
144	7S/3W-27D	983-1123; 1143-1283; 1343-1483; 1503-1743	25	0.0%	Sand with silty clay 25'-45'
146	7S/3W-28	50-190	42	0.0%	
150	7S/3W-27P	250-490; 510-950; 990-1070	125	0.0%	
152	8S/1W-5K	70-470; 490-540	130	90.8%	Forebay
153	8S/1W-5K3	50-220	170	99.0%	Forebay
154	8S/1W-5L2	50-220	100 1/	99.0% 2/	Forebay
157	8S/1W-5L	50-210	128	96.8%	Forebay
158	8S/1W-5K	50-210	128 1/	96.5%	Forebay
161	8S/1W-5	50-190	110	97.0%	
164	8S/1W-6	70-165	160	100.0%	
176	8S/2W-11	380-350; 390-500; 565-750	180	0.0%	
177	8S/2W-12	180-325; 355-500; 590-685; 720-760	166	0.0%	
205	7S/3W-35A	150-1000	10	0.0%	Sandy clay 10'-20'
210	8S/2W-12K	48-228	140	94.0%	Clay cobblestones 160'-167', 175'-227'
218	8S/2W-20B5	48-289	40	0.0%	Old 28; clay with sand layer 40'-60'; now monitoring wells 427, 428 and 429
220	7S/3W-26Q1	114-450	58	0.0%	Clay 58' - 73'
223	8S/2W-20C1	48-250	163 1/	94.0%	CAT Well; east of Wildomar Fault; nearby Exh 16 wells 17Q @62' & 17M @55' are also east of Wildomar Fault
224	8S/2W-15D	48-250	166 1/	68.0%	Old Well 50, clay 106'-138'
230	8S/2W-11J1	24-31; 32.5-34; 35-40; 61-65; 70-76; 80-85; 86.5-91; 92.5-98.5	>119	100.0%	Old Well 30, depth of well is 119'
231	8S/2W-20B6	80-120; 150-270	140 1/	0.0%	Old 104, P-34, Clay 20'-23'; 35'-41'; East of Wildomar Fault
232	8S/2W-11J3	95-135; 175-215; 235-295	115 1/	92.0%	Old 111, 105, P-31; coarse sand & clay 135' - 155'
233	8S/2W-12K2	95-135; 175-215; 235-295	145	88.0%	Old 112, P32; sand and clay at 145'-220'
234	8S/2W-11P1	80-100; 120-140; 200-240; 280-320; 340-400	162 1/	74.0%	Brown Clay at 125'; sand and clay at 125'-140'
235	8S/3W-1Q1	Unknown	Shallow	0.0%	
236	8S/2W-12	80-220; 230-280	145	95.0%	
237	7S/2W-34	660-695; 699-1000		0.0%	
238	8S/2W-7	435-460; 480-570; 685-1,055		0.0%	
240	7S/3W-36A	500-990	112	0.0%	Old Well 205
301	7S/3W-18Q1	140-280; 280-520; 540-640	26	0.0%	Old JR1; blue clay 26'-32'
466	8S/3W-1P2	106-822	49	0.0%	Old 219, Cantarini, hard clay 49'-60'
467	8S/2W-12K1	50-100; 100-140	140	100.0%	Old 221, JK, Exh. 16, Monitoring well since 1983

1/ In 2015, Watermaster, Rancho California WD and Camp Pendleton agreed to the revised depths of younger alluvium for indicated wells. See discussion in Appendix F.

2/ Percent younger alluvium for Well No. 154 provided by Rancho California WD.

TABLE 7.8

SANTA MARGARITA RIVER WATERSHED
RANCHO CALIFORNIA WATER DISTRICT
WELL PRODUCTION FROM YOUNGER AND OLDER ALLUVIUM
2022-23
Quantities in Acre Feet[1/]

WELL NO.		QYAL	QTOAL	TOTAL
102	3/, 4/	0.0	391.4	391.4
106	3/	0.0	30.4	30.4
108	3/	0.0	533.4	533.4
109	5/	215.3	45.7	261.0
113		0.0	113.6	113.6
119	2/	0.0	309.3	309.3
120		0.0	1,441.0	1,441.0
122	2/	0.0	100.6	100.6
123	5/	74.7	40.2	114.9
126		0.0	753.2	753.2
130		0.0	995.6	995.6
131		0.0	836.7	836.7
132	5/	282.9	62.1	345.0
133		0.0	506.0	506.0
135	4/	0.0	11.4	11.4
138		0.0	1,574.6	1,574.6
139		0.0	0.8	0.8
140		0.0	566.2	566.2
141		0.0	399.6	399.6
143		0.0	148.4	148.4
145		0.0	408.0	408.0
146	4/	0.0	0.4	0.4
149		0.0	386.6	386.6
152	5/	2,254.7	228.4	2,483.1
153	5/	2,553.3	25.8	2,579.1
154		796.8	8.0	804.8
155	4/	0.0	4.6	4.6
156		0.0	494.0	494.0
157	5/	1,467.3	48.5	1,515.8
158	5/	1,515.2	55.0	1,570.2
161		1,416.4	43.8	1,460.2
164	6/	1,495.6	0.0	1,495.6
176		0.0	372.9	372.9
177		0.0	676.3	676.3
203		0.0	566.7	566.7
211	2/	0.0	104.8	104.8
217	5/	0.0	792.7	792.7
232		257.0	22.4	279.4
233	7/	415.8	56.7	472.5
235		0.0	940.4	940.4
236		1,108.8	58.4	1,167.2
237		0.0	558.6	558.6
238		0.0	474.4	474.4
240		0.0	903.3	903.3
309		0.0	1,899.5	1,899.5
		13,853.8	**17,990.4**	**31,844.2**

1/ Totals may not add due to rounding.
2/ A total of 140.4 AF from Well Nos. 119, 122 and 211 was delivered to Pechanga Indian Reservation for their use.
3/ Includes 10.9 AF of releases to streams from Well Nos. 102, 106, 108 and 109.
4/ A total of 16.4 was pumped directly to the recycled water system from Well Nos. 102, 121, 135, 146 and 155
5/ Permitted point of re-diversion pursuant to Permit 7032.
6/ Replaced Well No. 110
7/ Replaced Well No. 210

7.2.9 Western Municipal Water District

WMWD operations within the SMRW are comprised of three categories. First, WMWD wholesales imported water to RCWD. Deliveries to RCWD are included under RCWD. Second, WMWD serves water to its Murrieta Division in the vicinity of the City of Murrieta. Third, WMWD serves imported water to its Improvement District A near the southern boundary of Riverside County, along the I-15 freeway. Improvement District A is operated by RCWD under an operations and maintenance contract on behalf of WMWD.

Murrieta Division

In November 2005, WMWD merged with the Murrieta County Water District assuming their operations in an area in the vicinity of the City of Murrieta. Prior Watermaster Reports present information under Murrieta County Water District.

All of the Murrieta Division of WMWD wells are located in the Murrieta-Temecula Groundwater Area. Interlocutory Judgment No. 30 indicates the younger alluvium deposits in Murrieta Valley extend in various depths to a maximum of approximately 30 feet from the ground surface.

The Court noted that it was impossible, based on evidence available in 1962, to determine with exactness the depth of the younger alluvial deposits throughout the Valley. However, the Court did retain continuing jurisdiction so that subsequent findings could be made, if needed.

Six of the seven Murrieta Division wells are perforated at depths of 106 feet or more. The Holiday Well has perforations beginning at a depth of 60 feet, which is well below the maximum depth of younger alluvium found by the Court in 1962. In addition, there has been no production from the Holiday Well since March 2006. Accordingly, all of Murrieta Division well production is from the older alluvium under a groundwater appropriative right.

In 2022-23, the Murrieta Division of WMWD produced a total of 567 AF from the New Clay Well (149.5 AF) and the North Well (417.2 AF). WMWD is rehabilitating its existing wells and will develop additional groundwater production wells within its Murrieta Division to restore groundwater production capacity to the quantity produced in WY 2006. WMWD imported 1,452 AF in 2022-23 as shown on Appendix Table A-10.

The following table itemizes the production from the Murrieta Division wells:

Well Designation 7S/3W	Well Name	WY 2023 Production AF	End of Water Year Depth to Groundwater in Feet 2022	2023	Well Depth Feet	Perforated Interval Feet
20	New Clay	149.5	289	295*	940	300 – 350 370 – 470 680 – 790 830 – 900
20C9	Holiday	0	75	67	307	60 – 307
20G5	House	0	143	140	252	120 – 252
17R2	Lynch	0	**	**	212	172 – 212
18J2	North	417.2	221	205	650	240 – 460 500 – 640
20D	South	0	156	156	446	120 – 446
7M	Alson	0	208	204	416	106 – 416
TOTAL		**566.7**				

* Pumping Level
** Not reported.

WMWD's Murrieta Division production for the period 1966 through 2023 is shown on Appendix Table B-11.

Improvement District A

In 2022-23, imports to Improvement District A amounted to 25.34 AF as shown on Appendix Table A-11. Deliveries to Improvement District A through turnout WR-13 for the period 1966 through 2023 are shown on Appendix Table B-12.

7.2.10 U. S. Marine Corps Base Camp Pendleton

CPEN is located on the coastal end of the SMRW. Water was provided by eleven wells (ten production wells and one environmental well) that produced 6,482 AF in 2022-23 for use by CPEN. This production is from the younger alluvium and is based on riparian, appropriative, and Pre-1914 rights. In 2022-23, there was no agricultural use and 6,482 AF were used for Camp Supply, including 1.4 AF from the SWFL Swamp Wells (CUP environmental requirement). Camp Supply includes domestic and commercial uses as well as irrigation for landscaping and park areas. CPEN water use is located both inside and outside the Watershed and is equal to total production less brine discharged to the Oceanside Outfall. A total of 2,384 AF was used inside the Watershed and 3,291 AF were exported to areas of the Base outside the Watershed. During 2022-23, there were an additional 2,520 AF of production associated with CUP deliveries to FPUD, which is reported on Appendix Table A-3. The production and use of water for CPEN are shown on Appendix Table A-8.

Beginning in December 2008, all southern wastewater for CPEN is treated at the Southern Region Tertiary Treatment Plant replacing Sewer Treatment Plant Nos. 1, 2, 3, and 13, all located in the southern half of CPEN (wastewater for the northern portion of the Base passes through the Northern Region Tertiary Treatment Plant. Wastewater from Las Flores is treated at the Southern Region Tertiary Treatment Plant and subsequently injected along the coast. On March 11, 2009, the Regional Water Quality Control Board issued Order No. R9-2009-0021 for a Master Reclamation Permit for the CPEN Southern Region Tertiary Treatment Plant. Wastewater effluent is discharged to either: (1) approved areas for use of recycled water for irrigation purposes; or (2) the Oceanside Outfall under National Pollutant Discharge Elimination System Permit No. CA0109347, Order No. R9-2003-0155, and Order No. R9-2008-0096. The approved areas for use of recycled water are located both within and outside the Watershed. In 2022-23, the total amount of recycled water for CPEN was 2,338 AF as shown on Appendix Table A-8. Of the total amount of recycled water, 27 AF were used inside the Watershed; 21 AF were used outside the Watershed; and 2,290 AF were exported to the Oceanside Outfall. An additional 807 AF of brine byproduct from the Southern Advanced Water Treatment Plant were exported to the Oceanside Outfall. The total amount exported to the Oceanside Outfall in 2022-23 was 3,097 AF.

Production and estimated use inside and outside the Watershed, as well as wastewater reclamation and use, are shown in Appendix Table B-9 for the period 1966 through 2023. It is noted, the format and reporting shown on Appendix Table B-9 were changed for the Annual Watermaster Report for WY 2009. Prior reports show for the period 1966 through 2003, reclaimed use inside the Watershed reported as recharged wastewater from ponds and recharge areas. In addition, the prior reports distinguished the source of the recharged wastewater between wastewater treated within or outside the Watershed at the various regional treatment plants. The format and reporting for 2022-23, on Appendix Tables A-8 and B-9, reflect current and anticipated operations for the foreseeable future. Accordingly, the prior format is obsolete and the reader is directed to prior reports from 2008, and earlier, for additional information regarding historical wastewater operations.

7.2.11 U. S. Naval Weapons Station Seal Beach, Detachment Fallbrook

The NWS occupies about 9,148 acres northeast of CPEN. Since 1969, the NWS has relied on imported water delivered via FPUD for its supply. Wastewater is exported from the NWS, FPUD's service area, and the Watershed via an outfall line maintained by FPUD with an easement across CPEN. In 2022-23, 35 AF were imported of which 0.90 AF of wastewater were exported, as shown on Appendix Table A-9. Imports and use for the period 1966 through 2023 are shown on Appendix Table B-10.

7.3 Indian Reservations

Water is used on the Indian Reservations in the Watershed in accordance with federal reserved rights described in Section 6. Water use information for the Cahuilla, Pechanga and Ramona Indian Reservations in the Watershed is described in the following sections:

7.3.1 Cahuilla Indian Reservation

In general, domestic water use on the Cahuilla Indian Reservation is not measured; however, reports for 2022-23 indicate that 363 people reside on the Reservation. These residents use water primarily for domestic purposes. Annual domestic water use, based on 157 gallons per capita per day, amounts to a total annual use of about 64 AF from wells listed in Appendix C. In addition, reports indicate Reservation non-irrigated lands are used for the grazing of 500 cattle. Based on a daily requirement of 32 gallons per head per day, the annual use is estimated to be about 18 AF. An additional 25 AF pumped from well 7S/2E-26B3 were put to commercial use for dust control, watering of turf grass, and at a casino.

7.3.2 Pechanga Indian Reservation

On December 21, 2006, the Pechanga Band of Indians and RCWD entered into a Groundwater Management Agreement for the Wolf Valley Groundwater Basin. The Pechanga Band and RCWD agreed to jointly manage groundwater pumping from the basin and to manage the basin to protect groundwater resources. Among other things, the agreement provides for RCWD to deliver pumped groundwater from its wells to Pechanga.

During 2022-23, Pechanga received 140 AF of delivered groundwater from RCWD. In addition, the Pechanga Water System produced 395 AF from wells, and received 456 AF of recycled water from EMWD, resulting in a total production for Pechanga of 991 AF. The monthly production and uses for the Pechanga Indian Reservation are shown on Appendix Table A-5. Information about Pechanga Water System wells is shown below:

Well Designation 8S/2W	Well Name	End of Water Year Depth to Groundwater in Feet 2022	2023	Well Depth Feet	Perforated Interval Feet
29A2	Kelsey	148.83	153.23	425	105 - 415
29B10	Eduardo	157.29	74.74	697	437 - 687
29B11	Eagle III	157.70	183.72	645	275 - 635
29J3	South Boundary	165.14	164.06	350	150 - 340
28M5	Cell Tower	80.62	80.56	518	372 - 432 468 - 508
28R1	Ballpark Well	80.81	78.64	1,000	126 - 996
19Q1	Zone V Rock 1	39.01	32.41	451	210 - 430

The total groundwater pumping for the Pechanga Water System wells decreased from 598 AF in 2021-22, to 395 AF in 2022-23. The total pumping in Wolf Valley by RCWD Wells 119, 122 and 211, for both the District's use and for delivery to Pechanga, decreased from 525 AF in 2021-22, to 515 AF in 2022-23. Therefore, the total pumping in Wolf Valley for 2022-23 decreased by 213 AF.

The wells listed above are in areas of younger alluvium at ground surface. The depth of the younger alluvium in Wolf Valley was estimated by representatives of RCWD and the United States, for RCWD Well No. 495 (8S/2W-20E) and Well No. 119 (8S/2W-19J), to be in the range of 120 to 170 feet in depth. Thus, based on available well construction data, production is from both the younger alluvium and the older alluvium. Under state law, production from the wells that originate in the older alluvium can be considered to be under a groundwater appropriative right or an overlying right, depending on the circumstances at each well.

Production and uses for the Pechanga Indian Reservation for WYs 1991 through 2023 are shown on Appendix Table B-6.

7.3.3 Ramona Indian Reservation

The Ramona Indian Reservation occupies 560 acres of land of which 321 acres are inside the Watershed. The water supply is provided for domestic use by two individual wells. Total production for 2022-23 is estimated by the Watermaster as 4.56 AF.

7.4 Small Water Systems

There are a number of small water systems in the Watershed. These range from relatively permanent structures, to those catering to recreational vehicles and campgrounds. Water production from wells is shown on Appendix Table A-11 for Quiet Oaks Mobile Home Park, Rancho California Outdoor Resorts, Jojoba Hills SKP Resort, Cottonwood Elementary, and Hamilton Schools. Data for previous WYs are shown on Appendix Table B-12.

7.5 Irrigation Water Use

Estimated water production reported by substantial users for irrigation in the SMRW is shown on Table 7.1 to be 4,310 AF. This quantity includes 3,817 AF of well production and approximately 493 AF of surface diversion as shown in Appendix C.

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SECTION 8 - UNAUTHORIZED WATER USE

8.1 General

From time to time, there are complaints of unauthorized water uses of various types in the Watershed. Such complaints are investigated in accordance with the powers and duties of the Watermaster. The status of the current list of unauthorized uses is described as follows:

8.2 Unauthorized Small Storage Ponds

Many small dams and reservoirs have been constructed on streams in the Watershed. The legal basis for these ponds is described in the 1988-89 Watermaster Report. Basically, the Court has held that storage of water in ponds less than 10 AF in capacity and used for stock watering is a valid use of riparian water. The Court has also held that:

> The temporary or non-seasonal impoundment by riparian owners for the purpose of providing a head for irrigation or for the purpose of temporarily accumulating sufficient water to make possible efficient irrigation is a proper riparian use of water.

Criteria for determining non-seasonal storage of irrigation water have yet to be developed.

8.3 Rancho California Water District Water Use

A number of unauthorized water use issues raised by the United States are settled so long as the CWRMA between the United States, on behalf of CPEN, and RCWD is in effect. As further explained in Section 11, many of these issues are described in Appendix F.

8.4 Exportation of Treated Wastewater Derived from Native Waters

CPEN continues to assert that the exportation of treated wastewater, the source of which is the native waters of the SMR system, without a legal basis for such exportation is an unauthorized water use. On May 17, 2011, the United States Court of Appeals for the Ninth Circuit issued an Order granting the parties' joint motion to dismiss the appeals in *United States and Fallbrook Public Utility District v. Eastern Municipal Water District and Rancho California Water District* (CV 04-8182 CBM (RNBx), United States District Court, Central District of California) and thus the August 4, 2009 Judgment in this case stands.

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SECTION 9 - THREATS TO WATER SUPPLY

9.1 General

General threats to the long-term water supply in the SMRW, which have been described in previous Watermaster reports, are as follows:

1. High nitrate concentrations in Rainbow Creek, Anza Valley and the Murrieta-Temecula areas.

2. Potential overdraft conditions at various locations in the Watershed.

3. Potentially adverse salt balance conditions in the upper SMR area.

4. High concentrations of arsenic, fluoride, and manganese in the Murrieta-Temecula area.

5. Quagga mussel infestation in imported supplies from the Colorado River system.

6. Illegal cannabis grow-sites.

9.2 High Nitrate Concentrations

In past years, high concentrations of nitrate have been measured in Anza Valley and in Rainbow Creek. Conditions in Anza Valley were generally described in the 1993-94 report. Additional water quality data for Anza Valley have been collected periodically by the Riverside County Department of Health Services and the USGS. Historic nitrate concentrations for these wells, in addition to other wells located in the Anza Valley groundwater basin area as reported by Riverside County Department of Environmental Health, are listed in Appendix D-13.

As described in prior Watermaster reports, in 1999 the Regional Water Quality Control Board, San Diego Region (Regional Board) began preparation of a plan for Total Maximum Daily Loads (TMDLs) for Total Nitrogen and Total Phosphorus on Rainbow Creek. On February 9, 2005, the Regional Board adopted Resolution No. R9-2005-0036, an amendment to the Basin Plan to include the Total Nitrogen and Total Phosphorus TMDLs and implementation plan. The SWRCB, on November 16, 2005, and the Office of Administrative Law, on February 1, 2006, subsequently approved the Basin Plan amendment. The U.S. Environmental Protection Agency granted final approval of the TMDLs on March 22, 2006.

The full plan and implementation programs are presented on the Regional Board's website:
http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/rainbowcreek.html

Recent data show high concentrations of nitrate pose a risk to water supplies from the Murrieta-Temecula Groundwater Area. In January 2006, WMWD ceased production from the Holiday Well because nitrate concentrations exceeded the Maximum Contaminant Level (MCL) of 45 mg/l.[3] The depth to the top of the perforated interval for the Holiday Well is only 60 feet and the high nitrate concentrations appear to be a result of nearby septic systems and agricultural practices. Concentrations of nitrate for some of the other WMWD and RCWD wells in the Murrieta-Temecula Groundwater Area have been detected in the range of 20 to 26 mg/l, which is below the MCL. The other WMWD and RCWD wells have deeper perforated intervals than the Holiday Well.

9.3 Potential Overdraft Conditions

Previous Watermaster reports have noted concerns about overdraft conditions in Anza Valley and in the Murrieta-Temecula Groundwater Area. Previous studies for Anza Valley include 1976 and 1988 reports by the USGS and a 1990 report by a consultant to Riverside County. No further studies relative to groundwater use in Anza Valley are currently available. Historical measurements of groundwater levels for Anza Mutual Water Company's Well No. 1 (7S/3E-21G1) located in Anza Valley are plotted in this report on Figure 4.4. Water levels in Anza Mutual Water Company Well No. 1 increased by 29.6 feet between September 30, 2022 and September 30, 2023. Groundwater levels for the USGS/Cahuilla Climate Response Network Well No. 7S/3E-34E1S located on/near the Cahuilla Indian Reservation increased by 0.6 feet between September 30, 2022 and September 30, 2023, as shown on Figure 4.7.

No recent published studies of safe yield are available for the Murrieta-Temecula Groundwater Area. Groundwater resources in the area are managed by RCWD, WMWD, and the Pechanga Band. Annual groundwater production programs are prepared with the goal of maximizing production within the apparent safe yield of the basin. Each year, groundwater levels and well production combined with other information including water quality, natural and artificial recharge, pump settings, and well construction factors, are used to develop the recommended production programs for several hydrogeologic sub-areas. Production rates are commonly lowered in sub-areas where water levels have declined over several years, and production rates are increased in sub-areas where decline has not occurred. As a final check, the recommended production rates are checked using the groundwater model for the Murrieta-Temecula Groundwater Area.

In addition, RCWD in cooperation with CPEN is in the process of developing a multi-level groundwater monitoring network, pursuant to the CWRMA. The purpose of the network is to collect data for use in assessing safe yield operations. In September 2006, the USGS began drilling and constructing the Pala Park Groundwater Monitoring Well as part of this network. The monitoring well was completed with six piezometers and continuous water level recording devices. In 2009, the groundwater monitoring network was expanded to include the Wolf Valley Monitoring Well previously constructed by the USGS under a cooperative program with the Pechanga Band. In 2013, two additional groundwater monitoring wells were constructed by the USGS under contract with RCWD. The two additional wells are the Temecula Creek Groundwater Monitoring Well and the VDC

[3] MCL of 45 mg/l for nitrate equates to 10 mg/l for nitrate as nitrogen (Nitrate as N).

Recharge Basin Groundwater Monitoring Well. Groundwater levels and water quality data for the four monitoring wells are reported in the annual CWRMA report.

Groundwater level data for three additional wells in the Murrieta-Temecula Groundwater Area are included in this report as Figures 4.1, 4.3 and 4.5. Water levels in the Windmill Well (8S/2W-12H1) located at the eastern part of Pauba Valley increased by 6.7 feet in 2022-23. Water levels in Well 7S/3W-20C9 in the Murrieta Division of WMWD increased by 7.5 feet between September 30, 2022 and September 30, 2023.

Well 8S/2W-29G1 on the Pechanga Indian Reservation in Wolf Valley became dry at the end of 2003-04. The declining water levels in Well 8S/2W-29G1 appear to be attributed to recent relatively dry hydrologic conditions and pumping of the nearby New Kelsey Well. To allow continued monitoring of water levels on the Reservation, Well No. 29G1 has been replaced with Well No. 8S/2W-29B9 which showed water levels increased by 0.4 feet in 2022-23.

Unincorporated areas within Court jurisdiction are of concern with regard to increasing demand and unknown supply reliability, specifically safe yields. Unlike the Murrieta-Temecula and Santa Margarita groundwater basins, the alluvial basins in unincorporated areas do not have the capability of importing water to augment the natural supply. The unknown nature of unincorporated areas constitutes a potential threat to water supply sustainability.

Declining water levels have been reported in the Aguanga groundwater area. Parties have reported wells going dry, requiring the deepening and/or replacing of some domestic wells. Information is currently being compiled to better understand the nature of the reported declining water levels in Aguanga Valley. Potential well interference, water quality, water waste, and water rights of parties are being investigated with respect to Aguanga Valley. It is anticipated that subsurface water availability analysis will be conducted based on hydrologic parameters of Aguanga Valley, and findings will be reported to the Court. For more information on water rights associated with Aguanga Valley, the reader is referred to Interlocutory Judgement 40: Aguanga Groundwater Area (and associated exhibits).

9.4 Salt Balance

A key issue in management of a groundwater basin is potential build-up of salts from imported water supplies and use of recycled water. Such a build-up could decrease the usability of waters in a basin. Consideration must be given to measures that allow desalination of water supplies and export of salts from a basin to offset the salt load in water entering the groundwater basin.

The TDS concentration for imported supplies into the Watershed is shown on Table 5.3. During 2022-23, the reported TDS concentrations ranged from 349 to 625 mg/L as compared to concentrations for 2021-22 ranging from 449 to 610 mg/L.

The salt balance for the Murrieta-Temecula Groundwater Area is of interest due to increased imported supplies to meet existing and future demands, and also increased use of reclaimed wastewater for irrigation. The potential salt loading can be illustrated by

estimating the total salts imported into the basin by the major purveyors overlying the groundwater area. The net imported supplies for the major purveyors are provided on Table 5.2 and the individual production and use tables are included in Appendix A. Assuming the groundwater area is subject to salt loading from net imports for EMWD, EVMWD, WMWD (Murrieta Division), and RCWD (Rancho Division); the total net imports for 2022-23 were 41,714 AF. It is noted, imports for a portion of the RCWD, Santa Rosa Division, potentially contribute to salt loading for the groundwater area but such contribution is ignored for this illustration. Applying monthly TDS concentrations from Table 5.3 to monthly net imports for these major purveyors result in an estimated total annual salt import for 2022-23 of approximately 28,900 tons compared to the estimated salt import of 40,100 tons for 2021-22 and 39,400 tons for 2020-21.

The salt balance for the Murrieta-Temecula Groundwater Area is affected by the export of wastewater from the Watershed. In 2022-23, EVMWD exported 969 AF of wastewater for treatment outside the Watershed. During the same period, EMWD exported 3,192 AF of treated wastewater for reuse/discharge outside the Watershed. Additional treated wastewater may have been exported from the Watershed through recirculation in the system, but such additional amounts have not been determined. At an average TDS concentration of 650 mg/l, there are approximately 1,768 pounds of salt in every acre-foot of wastewater. Thus in 2022-23, approximately 3,700 tons of salt were exported by EVMWD and EMWD through the export of 4,161 AF of wastewater. For comparison in 2021-22, approximately 5,800 tons of salt were exported with the export of 6,537 AF of wastewater.

The use of recycled water for irrigation is also a consideration in evaluating the salt balance for the Murrieta-Temecula Groundwater Area. The reuse within the groundwater area does not import additional salts into the Watershed; rather the source of water supply further concentrates the salts in contrast to relatively lower TDS levels for other sources of water supplies. The total use of recycled water by EMWD, EVMWD, RCWD, and the Pechanga Band within the SMRW for 2022-23 was 5,879 AF compared to 5,901 AF in 2021-22 and compared to 690 AF in 1986-87. Assuming an average TDS concentration of wastewater of 650 mg/l, the salt loading for 5,879 AF of recycled water is approximately 5,200 tons. It is expected that the use of recycled water within the Watershed will increase in the future.

The salt balances of the Murrieta-Temecula Groundwater Area, the SMR, and the groundwater basins on CPEN are affected by operational and maintenance discharges by RCWD from wells into Temecula Creek and Murrieta Creek. In 2022-23, wells discharged approximately 11 AF, as shown below, together with the TDS for the most recent sample for each well. Additional water quality data for the wells are provided in Appendix D.

Well No.	Releases AF	TDS mg/l	Most Recent Sample Date
102	2.40	500	05/03/2023
106	0.10	330	01/13/2023
108	3.70	420	02/02/2023
109	4.70	680	02/02/2023
Total	10.90		

The salt balances for the SMR, and the groundwater basins on CPEN, are also influenced by discharges by RCWD of imported supplies into SMR as part of make-up flows under the CWRMA. During 2022-23, the discharge of imported supplies to the SMR as make-up flows from Service Connection WR-34 was 3,099 AF. During 2022-23, a total of 790 AF was discharged from the potable connection to the SMR, and there were no discharges to Murrieta Creek from the System River Meter. Discharges from the potable connection are comprised of a blend of groundwater and imported supplies.

In March 2014, RCWD completed the Temecula Valley Basin Salt and Nutrient Management Plan. The plan was prepared pursuant to the SWRCB Recycled Water Policy adopted by Resolution No. 2009-0011 on February 3, 2009, as amended by Resolution No. 2013-0003 on January 22, 2013. The Temecula Valley Basin Salt and Nutrient Management Plan is currently being updated and is expected to be completed by April 2024. In November 2012, CPEN completed the *Salt and Nutrient Management Plan, Southern MCB Camp Pendleton*, also prepared pursuant to the SWRCB Recycled Water Policy cited above.

9.5 High Arsenic Concentrations

The MCL for arsenic is 10 ug/l. High concentrations of arsenic have been detected in groundwater wells for both the Murrieta Division of WMWD and RCWD, posing a risk to water supplies in the Murrieta-Temecula Groundwater Area. In November 2007, WMWD ceased pumping from the New Clay Well due to arsenic levels exceeding the MCL. Pumping from the New Clay Well resumed in September 2012, under an approved monitoring plan after WMWD completed well renovation measures. Pumping from the New Clay Well was again ceased in April 2013 due to arsenic levels exceeding the MCL. In April 2014, pumping from the New Clay Well was again resumed.

The elevated arsenic levels have significantly impacted groundwater pumping and distribution system operations for RCWD. Three wells have been taken out of production due to arsenic levels exceeding the MCL. In 2022-23, four other wells (Wells 106, 126, 140, and 143) showed levels exceeding the MCL with the wells still in operation. Five additional wells (Wells 203, 217, 235, 237, and 240) showed levels approaching the MCL and may be included in a blending plan in the future.

9.6 High Fluoride Concentrations

The MCL for fluoride is 2 mg/l, and samples exhibiting high concentrations of arsenic often show high concentrations of fluoride in the Murrieta-Temecula Groundwater Area.

High levels of fluoride are impacting operations for RCWD. In 2022-23, one well (Wells 126) showed fluoride levels exceeding the MCL. In addition, one Pechanga well (8S/2W-28M5) showed fluoride levels exceeding the MCL.

9.7 High Manganese Concentrations

The secondary MCL for manganese is 50 ug/l, and high concentrations of manganese have been detected in wells for both the Murrieta Division of WMWD and RCWD. In 2022-23, the two RCWD wells that were previously in operation under approved manganese sequestering plans (Wells 101 and 118) did not produce, and therefore, did not operate under sequestering plans. During 2022-23, one other RCWD well (Well 102) showed levels exceeding the secondary MCL. In 2022-23, six out of ten active groundwater supply wells tested for CPEN showed manganese levels exceeding the secondary MCL with groundwater treated under approved treatment plans.

9.8 Quagga Mussel

In early January 2007, the invasive, non-native quagga mussel was discovered in Lake Mead. Subsequently, upon thorough inspection, MWD discovered the mussel throughout the Colorado River Aqueduct system including in August 2007, finding the mussels in Lake Skinner. MWD has not placed any Colorado River water into Diamond Valley Lake since 2005 and no mussels have been found in the lake to date.

The quagga mussel is indigenous to Ukraine and was discovered in the United States in September 1989 with the first sighting in the Great Lakes. The quagga mussel is a small freshwater mollusk ranging in size from microscopic in the embryonic state to about two inches in length at the adult stage. The mussels can be transported during the larval stage with currents or running water, and at the adult stage by attaching to hard surfaces, such as boats.

The quagga mussel is a filter feeder removing food and nutrients from the water column, decreasing the food source for zooplankton and therefore, altering the food web. The filtration of the water also alters water clarity impacting aquatic plants and water chemistry. The economic impact is also significant because these species can rapidly colonize hard surfaces, clogging water intake structures, pipes, and screens and reducing pumping and distribution capacities. Costs are also associated with maintenance of facilities and control of the species.

Since the discovery of quagga mussels in the Colorado River Aqueduct, Lake Mathews, and Lake Skinner, MWD has implemented various control measures. The outlet of Copper Basin, a few miles downstream of MWD's intake in the Colorado River, is continuously chlorinated. Water leaving Lake Skinner and Lake Mathews is also continuously chlorinated downstream of the outlet tower. In addition, the outlet towers are usually chlorinated for two weeks every quarter to ensure that quagga mussels do not colonize the tower and interfere with operations and water deliveries. Also, MWD routinely shuts down the Colorado River Aqueduct every year (typically in the first quarter) for ongoing system maintenance. These shutdowns provide an opportunity to inspect for

attached quagga mussels in the normally submerged structures and facilities, and to kill any exposed mussels by desiccation.

Effective October 10, 2007, Assembly Bill 1683 added Section 2301(a)(1) to the California Fish and Game Code prohibiting the release of quagga mussels into the waters of the State. Assembly Bill 1683 also requires development of a Quagga Mussel Control Plan. On December 8, 2007, MWD temporarily suspended required releases of water to Tucalota Creek from Lake Skinner and Warm Springs Creek from the San Diego Canal near Diamond Valley Lake. These required releases would have been made in accordance with Memoranda of Agreement for releasing native inflows from the reservoirs. On March 6, 2008, MWD provided notice to the parties in *United States v. Fallbrook Public Utility District*, *et al.*, regarding the temporary suspension of required releases of native water inflows from Lake Skinner and Diamond Valley Lake.

On June 23, 2008, MWD provided notice to the parties in *United States v. Fallbrook Public Utility District*, *et al.*, regarding the resumption of required releases of native water inflows from Lake Skinner and Diamond Valley Lake, according to MWD's original Quagga Mussel Control Plan. MWD is operating under a revised Quagga Mussel Control Plan for its entire system, approved by California Department of Fish and Wildlife (CDFW) in 2013, and a specific raw water discharge plan for Tucalota Creek, from Lake Skinner, approved by CDFW in October 2015. To meet release requirement at Diamond Valley Lake, MWD is operating under the 2013 Quagga Mussel Control Plan and a raw water discharge plan (approved by CDFW in January 2018) for releases to Warm Springs Creek from the lake or the San Diego Canal. However, since Diamond Valley Lake does not contain quagga mussels, releases directly from the lake do not pose a danger of infestation to downstream waterbodies.

Infestation by the quagga mussels have also altered RCWD operations in accordance with the CWRMA. Two discoveries have been reported, occurring on April 10, 2008, and May 20, 2021. In response, RCWD periodically ceased making releases of raw water from Service Connection WR-34 on the MWD San Diego Pipeline No. 5 to meet make-up flow requirements for the SMR. Alternatively, RCWD releases make-up flows from its treated water distribution system at the System River Meter located just upstream of the Murrieta Creek at Temecula gaging station, or from the potable connection to the Service Connection WR-34 discharge location. The treated water is de-chlorinated prior to release into Murrieta Creek.

In response to the threat of infestation of quagga mussels, RCWD has developed three separate control plans that constitute an overall action plan. These plans were updated in 2012 and are comprised of the following: (1) Dreissena Mussel Response and Control Action Plan, (2) Vail Lake Rapid Response Plan, and (3) Vail Lake Conveyance System Dreissena Mussel Control Plan, collectively referred to as the Plans. On September 14, 2012, the CDFW approved the amended Plans that include the following key components:

- Substrate monitoring utilizing coupon sampling equipment at Vail Lake and the SMR at a sampling location approximately 100 feet downstream of the Service Connection WR-34 for releases of make-up water in accordance with CWRMA.

- Raw MWD water is released into the SMR only when chlorination is being performed at Lake Skinner.
- All watercraft vessels, trailers, and equipment are being inspected before launching in Vail Lake.
- Installation of chlorination, filtration, and turbulence devices within the Vail Lake Pipeline to result in 100% mortality of mussels passing through the system for delivery of imported supplies to Vail Lake.

9.9 Illegal Cannabis Grow Sites

In recent years, there has been an increasing amount of illegal cannabis cultivation occurring in the SMRW, especially occurring in unincorporated portions of the watershed such as Anza. Efforts were taken to better understand illegal cannabis growing and whether there are threats to water supply and water quality with its cultivation. Further information on illegal cannabis grow sites was presented in the 2017-18 Report and Appendix H thereto.

SECTION 10 - WATER QUALITY

10.1 Surface Water Quality

The USGS collected continuous water quality measurements for dissolved oxygen, pH, specific conductance, and temperature at the SMR near Temecula gaging station during 2022-23. Data collected at the station are published by the USGS. The highest average daily high and the lowest average daily low for each parameter for each month are shown on Table 10.1 for 2022-23.

Surface water quality data collected by the USGS in 2004-05 for Cahuilla Creek are shown on Appendix Table D-12. No surface water quality data for Cahuilla Creek were collected in 2022-23.

Surface water quality data collected in prior years by CPEN, EMWD, and RCWD are listed in earlier Watermaster reports.

10.2 Groundwater Quality

During 2022-23, water quality data was collected from wells at WMWD – Murrieta Division, RCWD, Pechanga Indian Reservation, CPEN, and Domenigoni Valley.

WMWD – Murrieta Division sampled two wells in 2022-23 as shown in Appendix Table D-3. The New Clay Well and North Well were each subjected to multiple standard chemical analyses. Concentrations of nitrates were below the MCL of 45 mg/l, or 10 mg/l as nitrogen (as N), with most results reported to be below the laboratory detection limit.

Water quality data for RCWD wells are shown on Appendix Table D-4. Samples were collected from 41 wells during 2022-23. Nitrate concentrations ranged up to 11.0 mg/l as nitrogen (as N), with the MCL being 10 mg/l (as N). Samples from one well (Well 109) showed TDS concentrations exceeding 750 mg/l, the Basin Plan objective. Wells 122 and 158, which showed TDS concentrations exceeding 750 mg/l in prior years, showed reduced TDS concentrations for 2022-23, ranging from 630 to 730 mg/l.

Beginning in October 2017, groundwater samples were taken from monitoring and production wells in the Domenigoni Basin, and from seepage weirs in the Owen (West) Dam as part of a Domenigoni Basin Groundwater Monitoring Plan. The West Dam includes five seepage weirs that outlet to an unlined channel in the Domenigoni Basin area. Seepage Weirs 1, 2 and 3 are located on the north end of the West Dam. Seepage Weirs 4 and 5 are located on the south end of the West Dam. All effluent from the 5 weirs is routed through lined channels to a pipe. The outlet deposits effluent into an unlined channel. Weir flow data from 2000 to present is maintained by MWD. Results from the monitoring plan are shown in Appendix Table D-11. Samples from several wells and West Dam weirs showed TDS and nitrate exceedances.

TABLE 10.1

SANTA MARGARITA RIVER WATERSHED

RANGES IN AVERAGE DAILY CONCENTRATION OF DISSOLVED OXYGEN, PH, SPECIFIC CONDUCTANCE AND TEMPERATURE AT SANTA MARGARITA RIVER NEAR TEMECULA

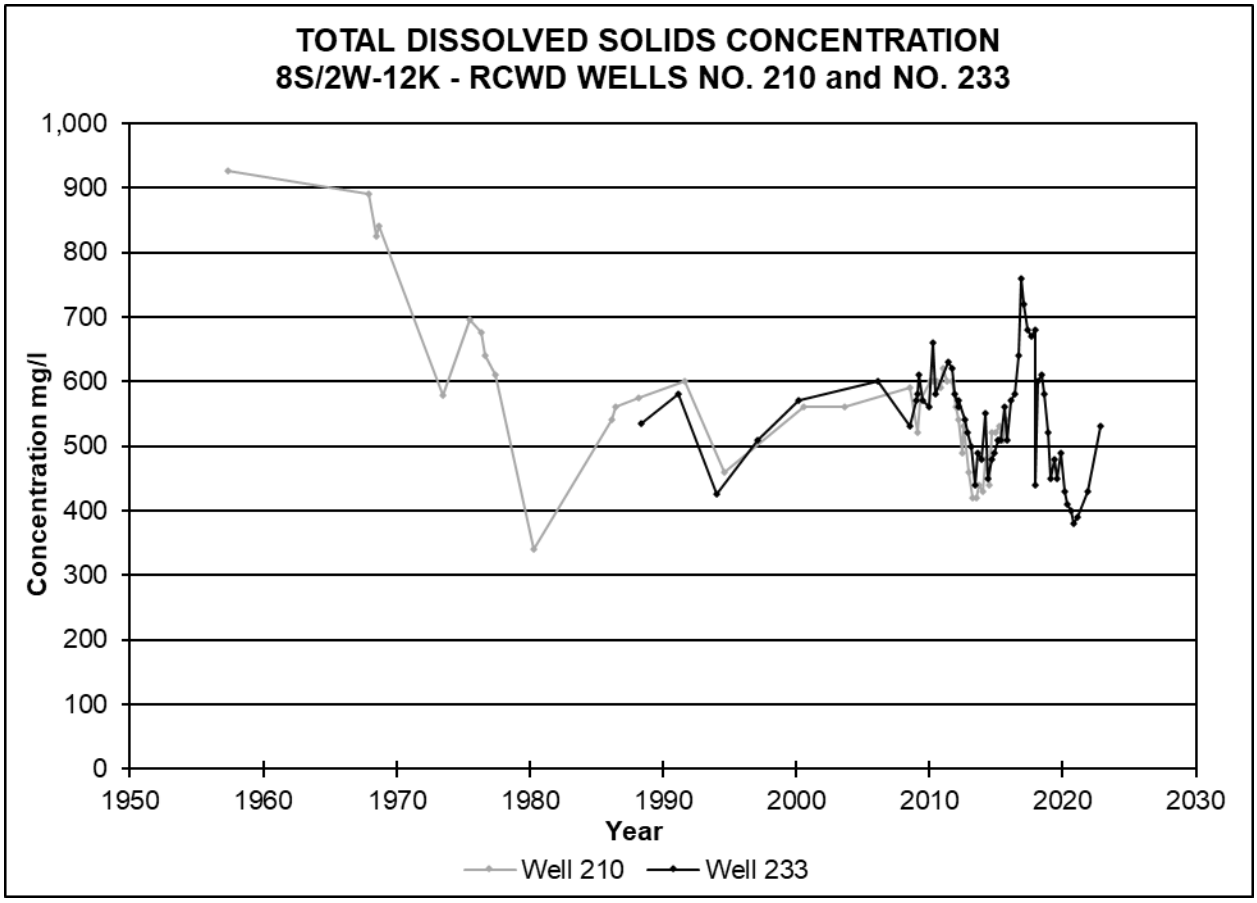
Water Year 2022-23

COLLECTION MONTH/YEAR	DISSOLVED OXYGEN mg/l		pH		SPECIFIC CONDUCTANCE µmho/cm		TEMPERATURE Degrees Celsius	
	High	Low	High	Low	High	Low	High	Low
2022								
October	8.2	5.1	8.3	7.6	1,610	828	26.4	18.1
November	9.6	5.3	8.4	7.5	1,710	214	23.1	12.1
December	11.3	7.9	8.2	7.6	1,730	222	22.1	8.7
2023								
January	13.0	8.3	8.1	7.7	1,430	135	16.4	6.9
February	14.9	1.4	8.3	7.3	1,680	172	19.0	6.6
March	13.9	6.5	9.0	7.8	1,180	77	22.3	6.1
April	12.4	2.6	8.8	8.0	1,400	224	24.7	10.0
May	12.3	6.9	8.5	7.8	1,300	210	23.1	13.6
June	9.6	7.3	8.3	7.8	919	663	23.5	20.4
July	8.7	7.0	8.4	7.7	1,140	565	26.5	22.1
August	9.3	5.3	8.3	7.2	1,230	170	28.4	20.7
September	10.6	3.2	8.1	7.4	1,310	548	26.8	22.9

**- Partial Record: Indicates months with interruptions in record at times due to malfunction of recording equipment. High and low values indicated for days with reported data. Daily data and number of days with no record can be viewed at the following website: *http://web10capp.er.usgs.gov/adr06_lookup/search.jsp* searching by site number 11044000.

TDS concentrations for RCWD Well No. 210 are shown on Figure 10.1 for samples collected since 1957, when the well was constructed. Because Well No. 210 is currently offline, data for Well No. 233, dating back to 1988, is included on the figure. Well No. 233 was chosen for this figure due to its proximity to Well No. 210. The figure shows a decline in TDS from approximately 900 mg/l for the samples collected during the 1960's to the 400-600 mg/l range in recent years (Well No. 210). Trend analyses for other wells throughout the Murrieta-Temecula area show a mix of increasing and decreasing trends in TDS levels depending upon location and aquifer.

Figure 10.1



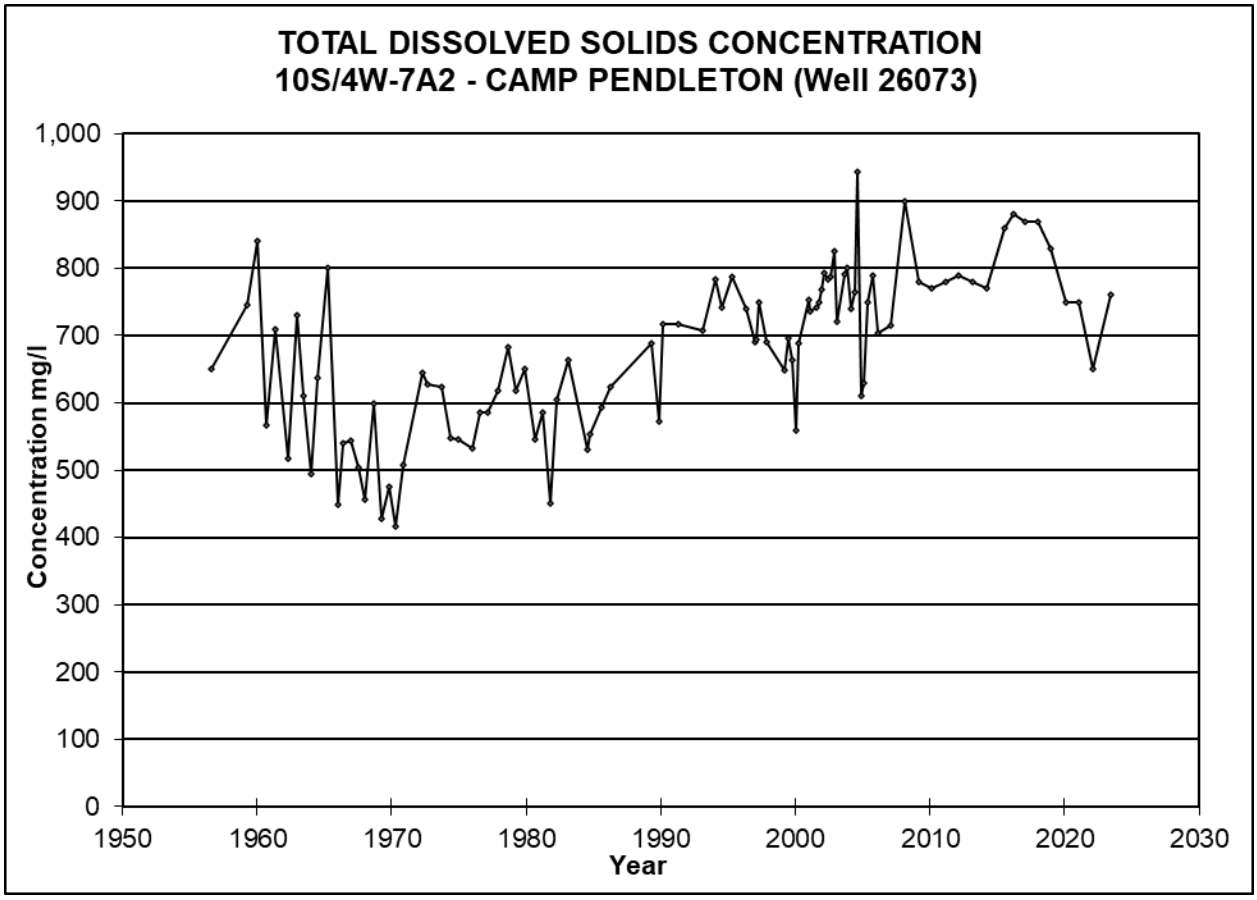
Appendix Table D-5 shows water quality data collected by the USGS from wells on Indian Reservations. In 2022-23, samples were collected from five wells on the Pechanga Indian Reservation. For the Pechanga wells, TDS concentrations ranged from 256 to 446 mg/l.

In 2022-23, no samples were collected from wells on the Cahuilla Indian Reservation.

During 2022-23, groundwater samples were collected from eight wells at CPEN as shown on Appendix Table D-6. All eight wells were subjected to standard chemical analysis. During 2022-23, samples show eight wells with TDS concentrations reaching/exceeding the Basin Plan Objective of 750 mg/l.

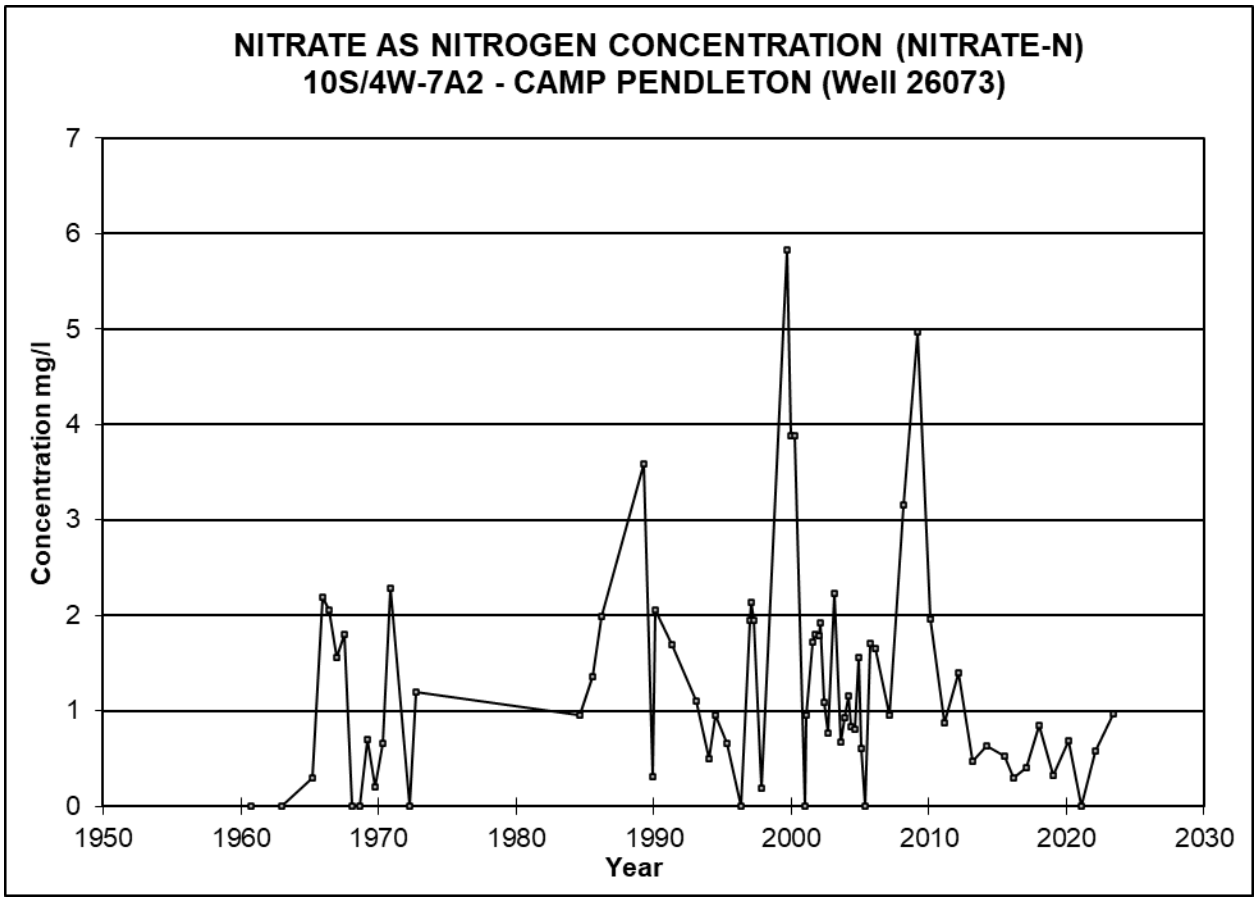
Historical TDS concentrations for CPEN Well 7A2 are shown on Figure 10.2 for samples collected since mid-1950. The figure shows a decline between mid-1950 and 1970, then a period of increasing concentrations to levels in the 550-950 mg/l range. Analysis of the sample collected in 2022-23 indicated TDS concentration of 760 mg/l, representing a 110 mg/l increase when compared to the sample collected in 2021-22.

Figure 10.2



Historical nitrate concentrations for the same well (7A2) are shown on Figure 10.3. The one sample collected in 2022-23 indicated a nitrate concentration of 0.97 mg/l as N.

Figure 10.3



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SECTION 11 – COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

11.1 General

On August 20, 2002, the CWRMA between CPEN and RCWD was approved by the Court. The CWRMA accounting is reported on a calendar year basis and, accordingly, Section 11 and Appendix E present data reported on a calendar year basis. However, the remainder of the Annual Watermaster Report is prepared on a water year basis requiring the CWRMA calendar year reporting to be converted to a water year basis to be incorporated into other sections of the report. The water year period begins on October 1 and concludes on September 30 of the following year.

It is noted that prior Annual Watermaster Reports served as the annual report required under CWRMA. Beginning in calendar year 2011, a separate annual report has been prepared by the Watermaster and submitted to the Court to meet the requirements of CWRMA. Section 11 continues to be included in the Annual Watermaster Report focusing on the accounting and operations related to Make-Up Water releases and flow requirements for the SMR at the Gorge. Section 11 also includes an overview of other topics included in the stand-alone Annual CWRMA Report.

The CWRMA provides that on May 1 of each year, the Technical Advisory Committee is to compute a hydrologic index for the year based on streamflow and precipitation between October and April. In May 2023, the hydrologic index was determined, and the year classified as a “Very Wet” hydrologic year. The hydrologic year establishes the required flows at the SMR near Temecula gaging station for the calendar year. Required flows for 2023, a “Very Wet” year, are listed in Section 5 of the CWRMA and are shown on Table 11.1.

As indicated above, CWRMA calendar year accounting must be converted to a water year basis for other sections of the annual report. The data for October through December 2022 for the various accounts are needed to convert the amounts shown on Table 11.1 to water year values. These data for October through December 2022 were reported in the prior year Annual Watermaster Report. To assist the reader in calculating water year amounts for various CWRMA operations, Table 11.2 in the current report is a repeat of Table 11.1 from the prior year’s report. Additional information concerning the operations underlying the values reported on Table 11.2 can be found in the prior year’s report.

Prior to implementation of the CWRMA, each year there were contentions raised by CPEN with respect to various aspects of the Annual Watermaster Report. These contentions are settled so long as that agreement is in effect. Accordingly, there is no need to raise those particular issues or publish them in the main text of the annual report or in related correspondence. Rather, the issues are provided in Appendix F.

TABLE 11.1

SANTA MARGARITA RIVER WATERSHED

**MONTHLY SUMMARY OF REQUIRED FLOWS,
DISCHARGES, CREDITS AND ACCOUNTS
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT**

2023 CALENDAR YEAR - VERY WET YEAR

Month	USGS Official Discharge AF 1/	USGS Website Daily Discharge AF 2/	Minimum Flow Maintenance Requirement cfs 3/, 4/	Section 5 Flows cfs 5/	No. of Days 10-day Running Average is Less than Required Flow 6/	Discharge from WR-34 AF 7/	Climatic Credits Earned AF 8/	Camp Pendleton Groundwater Bank 9/ Input AF	Camp Pendleton Groundwater Bank 9/ Cumulative Balance AF
Jan	11,275.6	11,220.9	9.1	24.1	0.0	5.0	0	775.0	5,000.0
Feb	3,551.2	3,478.6	9.1	24.1	23.0	74.1	0	700.0	5,000.0
Mar	13,765.9	13,489.0	9.1	24.1	0.0	2.0	0	775.0	5,000.0
Apr	691.7	699.9	9.1	24.1	5.0	216.2	0	750.0	5,000.0
May	1,151.9	1,052.3	11.5	15.7	17.0	514.0	0	257.3	5,000.0
Jun	687.3	586.6	11.5	12.2	20.0	684.7	0	42.0	5,000.0
Jul	598.0	580.0	9.7	9.7	21.0	619.1	0	0.0	5,000.0
Aug	2,879.1	2,725.6	9.2	9.2	1.0	421.5	0	0.0	5,000.0
Sep	558.0	559.2	9.4	9.4	3.0	517.5	0	0.0	5,000.0
Oct	514.0	500.6	10.1/3.5	10.1	10.0	482.7	0	85.0	5,000.0
Nov	503.5	493.1	3.5	11.5	0.0	151.0	0	477.0	5,000.0
Dec	517.7	516.2	3.5	13.5	0.0	125.0	0	613.8	5,000.0
CALENDAR YEAR TOTAL	**36,693.9**	**35,902.0**			**100**	**3,812.8**	**0.0**	**4,475.1**	**FULL**

1/ The USGS gage periodically had issues with seepage and unintentional bypasses from May through December, resulting in inaccurate daily discharge measurements.
2/ Required flows for January through April are equal to 9.1 cfs: 11.5 cfs less 2.4 cfs of credits. Due to maintenance on the MWD delivery pipeline, RCWD limited releases through March 2023.
3/ The minimum flow maintenance requirement was adjusted to 3.5 cfs from October 27th through December 31st to prevent CAP credits.
4/ The Table in Section 5 of the CWRMA sets forth guaranteed monthly flows at the Gorge once the Hydrologic Condition for the calendar year is established.
5/ The MWD pipeline maintenance and USGS gage issues resulted in a high number of days during which the 10-day running average at the Gorge was or appeared to be less than required. See TM 041723.0 and TM 060923.0 for further analysis.
6/ Periodically, the District releases water from its potable water system instead of from WR-34. These releases are included in the totals shown.
7/ CAP Credits equal the WR-34 discharge in excess of 4,000 AF. No CAP Credit earned in 2023.
8/ Climatic Credits equal the WR-34 discharges less actual Flow Requirements, which is the flow indicated in Section 5 of the CWRMA less applicable credits but not less than 3.0 cfs. 0 AF of Climatic Credits earned in 2023.
9/ Camp Pendleton's rights to groundwater equal the flow indicated in Section 5 of the CWRMA less the Actual Flow Maintenance Requirement, which cannot be less than 3.0 cfs. Input to the Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

TABLE 11.2

SANTA MARGARITA RIVER WATERSHED

**MONTHLY SUMMARY OF REQUIRED FLOWS,
DISCHARGES, CREDITS AND ACCOUNTS
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT**

2022 CALENDAR YEAR - BELOW NORMAL YEAR

Month	USGS Official Discharge AF	USGS Website Daily Discharge AF	Minimum Flow Maintenance Requirement cfs 1/, 2/	Section 5 Flows cfs 3/	No. of Days 10-day Running Average is Less than Required Flow	Discharge from WR-34 AF 4/	Climatic Credits Earned AF 5/	Camp Pendleton Groundwater Bank 6/ Input AF	Camp Pendleton Groundwater Bank 6/ Cumulative Balance AF
Jan	395.0	403.3	6.5	8.0	8.0	307.8	133.9	306.9	5,000.0
Feb	366.7	370.5	6.5	8.0	14.0	241.6	84	277.2	5,000.0
Mar	601.8	594.7	6.5	8.0	9.0	303.1	136.1	306.9	5,000.0
Apr	410.8	481.4	6.5	8.0	0.0	395.5	215.5	297.0	5,000.0
May	287.0	286.1	5.7	5.7	15.0	294.3	0	0.0	5,000.0
Jun	301.4	311.8	4.9	4.9	3.0	321.1	0	0.0	5,000.0
Jul	268.7	266.2	4.3	4.3	0.0	313.9	0	0.0	5,000.0
Aug	277.7	274.1	4.4	4.4	0.0	323.2	0	0.0	5,000.0
Sep	251.6	251.3	4.1	4.1	6.0	259.7	0	0.0	5,000.0
Oct	238.8	238.8	3.9	3.9	0.0	257.9	0	0.0	5,000.0
Nov	1,692.9	1,663.6	4.5/11.5	4.5	12.0	413.9	0	0.0	5,000.0
Dec	850.2	850.9	3.0	5.3	4.0	170.2	0	0.0	5,000.0
CALENDAR YEAR TOTAL	**5,942.6**	**5,992.7**			**71**	**3,602.2**	**569.5**	**1,188.0**	**FULL**

1/ Required flows for January through April are equal to 6.5 cfs: 11.5 cfs less 5.0 cfs of credits.

2/ The minimum flow maintenance requirement was adjusted to 11.5 cfs from November 18th through December 1st and to 3.0 cfs for December 2nd through 31st to make up for a release shortfall in May and June. The total calculated shortfall was 53.1 AF and the total volume of requested makeup water was 35.1 AF. The adjustment is documented in TM 103122.0.

3/ The Table in Section 5 of the CWRMA sets forth guaranteed monthly flows at the Gorge once the Hydrologic Condition for the calendar year is established.

4/ CAP Credits equal the WR-34 discharge in excess of 4,000 AF. No CAP Credit earned in 2022.

5/ Climatic Credits equal the WR-34 discharges less actual Flow Requirements, which is the flow indicated in Section 5 of the CWRMA less applicable credits but not less than 3.0 cfs. 570 AF of Climatic Credits earned in 2022.

6/ Camp Pendleton's rights to groundwater equal the flow indicated in Section 5 of the CWRMA less the Actual Flow Maintenance Requirement, which cannot be less than 3.0 cfs. Input to the Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

11.2 Required Flows

Under the CWRMA, RCWD guarantees that the ten-day running average of the measured flows at the SMR near Temecula gaging station shall meet the required flows for each month during the year. In order to meet the required flows, RCWD discharges Make-Up Water from two primary sources, both discharging into the river at the same location immediately upstream from the USGS gaging station for SMR near Temecula. The first primary source of Make-Up Water is raw water from MWD Aqueduct No. 5 discharged at Service Connection WR-34. The second primary source of Make-Up Water is from the RCWD treated water distribution system through a potable connection to the Service Connection WR-34 outlet pipe. In prior years, Make-Up Water was also discharged from the treated water distribution system to Murrieta Creek from two system discharge meters collectively referred to as the System River Meter. The two discharge meters are located on opposite sides of Murrieta Creek, immediately downstream of the USGS gaging station for Murrieta Creek at Temecula, which is located approximately 2,000 feet upstream of the confluence of Temecula Creek and Murrieta Creek. The System River Meter is operable as a secondary source of Make-Up Water if needed.

Flow requirements are based on two-thirds of the median natural flow of the SMR at the Gorge for a given hydrologic year type. During the winter period (January through April), RCWD shall maintain a ten-day running average equal to 11.5 cfs, less carry-over credits, less requested foregone Make-Up Water, but not less than 3.0 cfs. RCWD may earn Climatic Credits in Below Normal and Critically Dry years if it has provided Make-Up Water in excess of the Actual Flow Requirement. The Climatic Credit is equal to the Make-Up Water released, less the Actual Flow Requirement, less credits. The Actual Flow Requirement is determined on May 1 of each year and applied retroactively to the flows during the winter period. During the non-winter period (May through December), RCWD shall maintain a ten-day running average equal to the flow requirements specified in the CWRMA as determined on May 1st, less any foregone Make-Up Water agreed to by CPEN and RCWD. When RCWD is required to provide Make-Up Water in any calendar year in excess of 4,000 AF, it may apply CAP Credits for such excess during the following two winter periods. At no time is RCWD required to make up more than 11.5 cfs.

The measured daily flows, the ten-day running average, and the differences between the running average and the required flows are shown in Appendix E. Two listings of daily discharges are shown in the tables in Appendix E: the USGS official discharge and the USGS website discharge. The discharges shown on the website are those that dictate daily decisions regarding the quantities of Make-Up Water required and those discharges are used to compute the ten-day running average. The official discharge is a more refined estimate developed later by the USGS for publication.

The number of days each month when the ten-day running average was less than the required flows is summarized on Table 11.1. For calendar year 2023, there were 100 days when the running average was less than the required flows under normal CWRMA operations.

During calendar year 2023, the total releases by RCWD to meet CWRMA flow requirements were 3,812.8 AF as shown on Table 11.1.

570 AF of Climatic Credits were used in calendar year 2023, and no Climatic Credits were earned in calendar year 2023 in accordance with CWRMA provisions. In calendar year 2023, no CAP Credits were used and no CAP Credits were accumulated for use in subsequent years to meet any required releases by RCWD.

The CWRMA also provides that CPEN may acquire rights to groundwater above the Gorge by foregoing its right to Make-Up Water, or to the extent that the Actual Flow Maintenance Requirements are less than the flows in the table in Section 5 of CWRMA. The maximum cumulative balance for the CPEN groundwater account is 5,000 AF. During calendar year 2023, 4,475.1 AF were calculated as input to the groundwater account, but the balance was already at the maximum balance of 5,000 AF and no additional water was credited to the account.

11.3 Water Quality

The USGS continuously monitors four parameters of water quality at the SMR near Temecula gaging station, including dissolved oxygen, pH, specific conductance, and temperature. The daily averages for each of these parameters are reported annually. Monthly highs and lows for each parameter are listed in Table 10.1 for the water year ending September 30, 2023.

11.4 Monitoring Programs

The CWRMA provides for the establishment of two monitoring programs: (1) Section 5(g) provides for a program to assess the impacts of operations on water supply, water quality and riparian habitat within CPEN, and; (2) Section 7(d) provides for a program to assess safe yield operations of RCWD through the use of a multi-level groundwater monitoring network and periodic updates of the CWRMA Groundwater Model.

During 2007-08, CPEN initiated the Section 5(g) program named as the Lower Santa Margarita River Watershed Monitoring Program (LSMRWM Program) to evaluate whether the increased flows under CWRMA influence threatened and endangered species, riparian and wetland habitats, or water quality downstream. The LSMRWM Program will also support other water quality monitoring and watershed management activities in the SMRW. A copy of the Statement of Work for the LSMRWM Program was provided in the 2007 and 2008 Annual Watermaster Reports. The monitoring was funded for a two-year period and the final report, *Hydrological and Biological Support to Lower Santa Margarita River Watershed Monitoring Program Water Years 2008-2009* was

published on February 21, 2010, under a cooperative program between CPEN and the United States Bureau of Reclamation.

In September 2006, the USGS under contract with CPEN and RCWD constructed a multi-level monitoring well for the Murrieta-Temecula Groundwater Basin in accordance with Section 7(d) of CWRMA. The Pala Park Groundwater Monitoring Well is located near the confluence of Pechanga and Temecula creeks and was completed to a total depth of 1,499 feet. Six piezometers were installed for continuous water level recording in the saturated zone for the lower five screened intervals and for the upper-most screened interval to detect moisture in the unsaturated zone. The USGS monitoring program for the Pala Park Groundwater Monitoring Well is included in the ongoing Watermaster budget beginning in WY 2008.

In 2009, the groundwater monitoring program was expanded to include the Wolf Valley Monitoring Well that was previously constructed under a cooperative agreement between the USGS and the Pechanga Band. Two piezometers are installed at the Wolf Valley Well. The groundwater level monitoring for the Wolf Valley Monitoring Well was previously funded by the Pechanga Band, but is now included in the ongoing Watermaster budget beginning in WY 2010.

In 2013, two additional groundwater monitoring wells were constructed by the USGS under contract with RCWD. The groundwater level monitoring for these additional wells is also included in the ongoing Watermaster budget. The Temecula Creek Groundwater Monitoring Well was drilled in April 2013 to a depth of 1,720 feet and was completed with five piezometers. The VDC Recharge Basin Groundwater Monitoring Well was drilled in August 2013 to a depth of 1,033 feet and was completed with six piezometers.

Information concerning the construction of the monitoring wells, groundwater levels, and water quality data can be found at the following website: *http://ca.water.usgs.gov/temecula/*. Information obtained from the website as well as supplemental information for the groundwater monitoring wells is provided in the Annual CWRMA Report.

In 2010, 2011, and 2012, the water quality monitoring program also included collecting data for the two sources of supply for recharge at the head of Pauba Valley: (1) imported supplies for recharge at RCWD VDC Recharge Facilities, and; (2) native supplies from Temecula Creek as sampled at Vail Lake. Funding from the Watermaster budget was used to collect and analyze the data which are provided in the Annual CWRMA Report.

In 2012, the water quality monitoring program also included collecting data from selected groundwater production wells operated by RCWD within Pauba Valley. These wells were selected to compliment the water quality data for the monitoring wells and the two sources of supply for recharge at the head of Pauba Valley. Previously, groundwater production wells operated by RCWD were included in the 2004 and 2007 sampling programs for the Groundwater Ambient Monitoring and Assessment (GAMA) program implemented by the SWRCB. Data reported for 2013 were collected with funding from the

Watermaster budget. In 2013, funding from the Watermaster budget was used to analyze archived, age-dating samples that were collected during 2012. The samples from two groundwater production wells, Wells 109 and 234, were analyzed for tritium and carbon isotopes.

11.5 Groundwater Model

In 2007, CPEN and RCWD initiated an effort to update the CWRMA Groundwater Model in accordance with Section 7(d). Work on updating the groundwater model was completed in 2014 and 2015 with publication of the April 25, 2014 (revised January 8, 2015) report prepared by GEOSCIENCE Support Services, Inc., entitled *Surface and Ground Water Model of the Murrieta-Temecula Ground Water Basin, California, Model Update and Refinement Report*. The model update included the following: (1) development of GSFLOW which is a coupled surface water and groundwater model that includes a Precipitation-Runoff Modeling System and MODFLOW, (2) refinement of the groundwater model cell size, active/inactive boundaries and locations of recharge and discharge, (3) development of a three-dimensional lithologic model based on lithologic and geophysical borehole logs from wells in the area, (4) refinement of groundwater model layer elevations based on the results from the lithologic model, and (5) update of the surface water and groundwater model with data through 2008.

In 2016 and 2017, CPEN and RCWD continued efforts to update the CWRMA Groundwater Model and conduct groundwater model runs to evaluate various aspects of the management of the Murrieta-Temecula Groundwater Basin. Model updates included (1) GSFLOW model update and recalibration for the period 1988 through 2014, (2) extend the model with updated hydrogeologic data for the period 1988 through 2014, (3) update of land use and model flux terms for the period 1988 through 2014, (3) refinement of groundwater model layer elevations, and (4) re-calibrate the model. The process in which to update, refine, and re-calibrate the model is summarized in the report prepared by GEOSCIENCE Support Services, Inc., entitled *Surface and Ground Water Model of the Murrieta-Temecula Groundwater Basin Model Report Addendum: CWRMA Model Watermaster and Sustainable Yield Runs*, dated July 27, 2017. Results from the model are anticipated to be included in future CWRMA and Watermaster annual reports.

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SECTION 12 - FIVE YEAR PROJECTION OF WATERMASTER OFFICE ACTIVITIES

12.1 General

Projected tasks over the next five years are listed below in two categories: normal tasks, which are part of the usual Watermaster office operation; and additional tasks, which are foreseen but are not part of the normal office operations.

12.2 Normal Tasks

Tasks that are normally part of the Watermaster Office operation are as follows:

1. Update List of Substantial Users
2. Collect Water Production, Use, Import and Availability Data
3. Collect Well Location, Construction and Water Level Data
4. Administer Water Rights
5. Collect Water Quality Data
6. Monitor Water Quality and Water Right Activities
7. Administer Lake Skinner and Diamond Valley Lake MOU's
8. Administer Steering Committee Matters
9. Prepare Court Reports/Budgets
10. Monitor Streamflow and Water Quality Measuring
11. Data Management
12. Administer CWRMA
13. Jurisdictional determination for Riverside County Technical, Managerial, Financial process
14. SGMA Support
15. CUP Support

12.3 Additional Tasks

Tasks that have been identified but which are not part of normal operations are as follows:

1. Prepare List of All Water Users under Court Jurisdiction
2. Prepare Inventory of Ponds and Reservoirs
3. Determine Salt Balance

12.4 Projected Expenditures

Projected expenditures for the current year and over the next five years are listed as follows:

Year		Watermaster Office	USGS Groundwater Monitoring	USGS Gaging Stations	Total
Current Year	2023-24	$568,100	$79,250	$225,580	$872,930
Projected Years	2024-25	$593,710	$84,000	$241,970	$919,680
	2025-26	$623,400	$89,040	$256,488	$968,928
	2026-27	$654,600	$94,382	$271,877	$1,020,860
	2027-28	$687,300	$100,045	$288,190	$1,075,535
	2028-29	$721,700	$106,048	$305,482	$1,133,230

SECTION 13 - WATERMASTER OFFICE BUDGET

The budget for the Watermaster Office is established on an annual basis and is approved by the Court upon acceptance of the Annual Watermaster Report. The budget is presently funded from equal assessments paid by the Steering Committee; however, the Court retains the right to assess other parties in the future. An audit is conducted annually by an independent auditor and the independent auditor's report is submitted for review by the parties and the Court as part of the Annual Watermaster Report.

13.1 Comparison of Budget and Actual Costs for 2022-23

The Watermaster Budget for 2022-23 of $876,321 was approved by the Court upon acceptance of the Annual Watermaster Report for WY 2021. The Independent Auditor's Report and Report to the Steering Committee for Watermaster of the SMRW for Fiscal Year Ended September 30, 2023 is included in Appendix G. A comparison of the budget and actual costs for 2022-23 is shown on Table 13.1. The actual costs for 2022-23 were $860,585.50 (total operating expenses less depreciation) compared to the budget of $876,321, resulting in a favorable variance of $15,735.50. An explanation of individual line-item variances is provided in Appendix G.

13.2 Proposed Budget for 2024-25

The proposed Watermaster Budget for 2024-25 is published in the Annual Watermaster Report for 2022-23 and is determined to be final and accepted by the Court upon noticing and completion of the 30-day period for parties to file an objection to the report. Accordingly, the budget for 2024-25 is referred to in this report as the proposed budget. The proposed Watermaster Budget for 2024-25, along with a comparison to the approved budget for 2023-24 is shown on Table 13.2. The total budget for 2024-25 is $919,680. This budget includes $593,710 for the Watermaster Office and $325,970 for USGS gaging station operations and monitoring. The budgeted cost for services provided by the USGS is based on the annual renewal of a cooperative agreement with the Watermaster.

TABLE 13.1

SANTA MARGARITA RIVER WATERSHED

COMPARISON OF WATERMASTER BUDGET AND ACTUAL COSTS

WATER YEAR 2022-23

Line Item	Water Year 2022-23 1/ Approved Budget 2022-23 2/	Actual Costs 2022-23 3/	Actual Costs Minus Approved Budget 2022-23	
Watermaster Office	**$**	**$**	**$**	**%**
Accounting Services	$6,000	$4,358	-$1,642	-27.4%
Audit	6,500	7,250	750	11.5%
Legal Services	30,000	3,885	-26,115	-87.1%
Miscellaneous	500	0	-500	-100.0%
Postage	100	0	-100	-100.0%
Watermaster Services				
Consulting Services	534,351	552,275	17,924	3.4%
Travel Reimbursement	7,000	0	-7,000	-100.0%
SUBTOTAL WATERMASTER OFFICE	**$584,451**	**$567,768**	**-$16,683**	**-2.9%**
USGS				
Gaging Station	$192,620	$193,955	$1,335	0.7%
Surface Water Quality	20,900	20,775	-125	-0.6%
Groundwater Monitoring - Water Levels	78,350	78,088	-263	-0.3%
Groundwater Monitoring - Water Quality	0	0	0	0.0%
SUBTOTAL USGS	**$291,870**	**$292,818**	**$948**	**0.3%**
TOTAL	**$876,321**	**$860,586**	**-$15,736**	**-1.8%**

1/ Totals may not add due to rounding.
2/ Budget for 2022-23 approved by the Court as reported in the Annual Watermaster Report for WY 2021.
3/ Actual Costs from Financial Statements for period ending September 30, 2023.

TABLE 13.2

SANTA MARGARITA RIVER WATERSHED
PROPOSED WATERMASTER BUDGET FOR WATER YEAR 2024-25

Line Item	Water Year 2024-25 1/ Proposed Budget 2024-25 2/	Approved Budget 2023-24 3/	Increase Over Approved Budget 2023-24	
Watermaster Office	**$**	**$**	**$**	**%**
Accounting Services	$6,000	$6,000	$0	0.0%
Audit	7,000	7,000	0	0.0%
Legal Services	20,000	20,000	0	0.0%
Miscellaneous	500	500	0	0.0%
Postage	100	100	0	0.0%
Watermaster Services				
Consulting Services	555,110	529,500	25,610	4.8%
Travel Reimbursement	5,000	5,000	0	0.0%
SUBTOTAL WATERMASTER OFFICE	**$593,710**	**$568,100**	**$25,610**	**4.5%**
USGS				
Gaging Station	$219,370	$204,260	$15,110	7.4%
Surface Water Quality	22,600	21,320	1,280	6.0%
Groundwater Monitoring - Water Levels	84,000	79,250	4,750	6.0%
Groundwater Monitoring - Water Quality	0	0	0	0.0%
SUBTOTAL USGS	**$325,970**	**$304,830**	**$21,140**	**6.9%**
TOTAL	**$919,680**	**$872,930**	**$46,750**	**5.4%**

1/ Totals may not add due to rounding.
2/ Proposed budget for 2024-25; final budget to be approved by the Court upon acceptance of the Annual Watermaster Report for 2022-23.
3/ Budget for 2023-24 approved by the Court as reported in the Annual Watermaster Report for WY 2022, published April 2024.

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SANTA MARGARITA RIVER WATERSHED

ANNUAL WATERMASTER REPORT

WATER YEAR 2022-23

APPENDIX A

WATER PRODUCTION AND USE

WATER YEAR 2022-23

JULY 2025

TABLE A-1

SANTA MARGARITA RIVER WATERSHED

MONTHLY WATER PRODUCTION AND USE

EASTERN MUNICIPAL WATER DISTRICT

2022-23

Quantities in Acre Feet[1/]

	PRODUCTION					USE						RECYCLED WATER			
MONTH YEAR	WELLS	IMPORT 2/	EXPORT FROM SMRW 3/	NET IMPORT	TOTAL	AG	COMM	DOM	TOTAL	LOSS 4/	TOTAL USE	REUSE IN SMRW 5/	REUSE OUTSIDE SMRW	OTHER REUSE 6/	TOTAL
2022															
OCT	0	1,482	0	1,482	1,482	22	334	1,052	1,408	74	1,482	331	336	603	1,270
NOV	0	1,226	0	1,226	1,226	19	261	884	1,164	61	1,226	155	147	986	1,288
DEC	0	1,034	0	1,034	1,034	17	171	794	982	52	1,034	122	94	1,119	1,335
2023															
JAN	0	896	0	896	896	17	113	722	852	45	896	101	40	1,368	1,509
FEB	0	685	0	685	685	20	79	551	650	34	685	81	72	1,156	1,309
MAR	0	733	0	733	733	18	97	581	697	37	733	12	8	1,622	1,642
APR	0	773	0	773	773	12	89	633	734	39	773	78	222	1,190	1,490
MAY	0	969	0	969	969	9	165	747	921	48	969	144	389	919	1,452
JUNE	0	1,293	22	1,271	1,271	12	263	932	1,207	64	1,271	228	443	675	1,346
JULY	0	2,170	684	1,486	1,486	14	317	1,080	1,412	74	1,486	392	612	366	1,370
AUG	0	1,566	0	1,566	1,566	26	355	1,107	1,488	78	1,566	305	475	606	1,386
SEPT	0	1,624	27	1,598	1,598	14	360	1,144	1,518	80	1,598	328	354	656	1,338
TOTAL	0	14,451	733	13,718	13,718	201	2,605	10,226	13,032	686	13,718	2,277	3,192	11,267	16,736

1/ Totals may not add due to rounding.
2/ Does not include deliveries to RCWD, EVMWD or WMWD.
3/ Portion of imported supplies exported for delivery to EMWD's retail customers located outside the Watershed.
4/ Loss = 5%
5/ No sewage diverted to RCWD for WY 2023 for treatment at Santa Rosa Water Reclamation Facility. Reuse within Watershed includes 674 AF sold to RCWD, 455 AF sold to Pechanga Band, and 75 AF sold to EVMWD.
6/ Other Reuse includes changes of storage in Winchester and Sun City storage ponds, evaporation and percolation losses. A total of 4,912 AF of recycled water discharged to Temescal Creek in the Santa Ana Watershed in WY 2023.

TABLE A-2

SANTA MARGARITA RIVER WATERSHED

MONTHLY WATER PRODUCTION AND USE

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

2022-23

Quantities in Acre Feet[1/]

	PRODUCTION			USE 2/						WASTEWATER EXPORTED			RECYCLED WATER 4/		
MONTH YEAR	WELLS	IMPORT	TOTAL	AG	COMM	DOM	TOTAL DELIVERED	LOSS 3/	TOTAL USE	UNTREATED WASTEWATER	REUSE OUTSIDE SMRW	TOTAL WASTEWATER EXPORT	REUSE INSIDE SMRW	REUSE OUTSIDE SMRW	TOTAL REUSE
2022															
OCT	0	536	536	1	131	398	529	7	536	54	45	99	11	45	56
NOV	0	421	421	0	76	339	416	5	421	54	19	74	5	19	25
DEC	0	372	372	0	61	305	367	5	372	56	10	65	4	10	14
2023															
JAN	0	268	268	0	32	231	264	3	268	62	3	65	0	3	3
FEB	0	198	198	0	17	178	195	3	198	60	4	64	1	4	5
MAR	0	352	352	0	47	301	348	5	352	76	5	81	1	5	6
APR	0	268	268	0	29	235	265	3	268	77	4	81	2	4	7
MAY	0	441	441	0	76	360	436	6	441	76	23	99	8	23	31
JUNE	0	510	510	0	105	398	504	7	510	62	31	93	11	31	42
JULY	0	576	576	0	136	433	569	7	576	50	34	84	10	34	44
AUG	0	693	693	0	180	503	684	9	693	41	47	88	14	47	61
SEPT	0	565	565	1	147	410	558	7	565	42	34	75	10	34	44
TOTAL	0	5,200	5,200	4	1,039	4,090	5,133	68	5,200	710	259	969	78	259	337

1/ Totals may not add due to rounding.

2/ Water use definitions for all major water purveyors were updated and reconciled for WY 2014. The updated definitions are provided in Table 7.2.

3/ Loss percentage within the SMRW is determined using the calculation to determine District-wide unaccounted for water by comparing District-wide annual supply and customer deliveries, and is assumed to be constant for all months.

4/ EVMWD receives recycled water treated at the RCWD Santa Rosa Water Reclamation Facility via EMWD Palomar Pipeline through a wheeling agreement. In WY 2023, 1,039 AF of wastewater were delivered from EVMWD to RCWD for treatment at the Santa Rosa Water Reclamation Facility. In WY 2023, EVMWD received 337 AF of recycled water via EMWD and re-used 78 AF within the Watershed.

TABLE A-3

SANTA MARGARITA RIVER WATERSHED

MONTHLY WATER PRODUCTION AND USE

FALLBROOK PUBLIC UTILITY DISTRICT

2022-23

Quantities in Acre Feet[1/]

	DISTRICT WIDE PRODUCTION				SMRW PRODUCTION				SMRW USE						WASTEWATER			
MONTH YEAR	CUP WATER DELIVERED 2/	LAKE SKINNER DIVERSIONS DELIVERED 3/	TOTAL DISTRICT IMPORT 4/	TOTAL DISTRICT SUPPLY 5/	SMRW NATIVE 6/	SMRW IMPORT	TOTAL SMRW PRODUCTION	SMRW NATIVE EXPORT 7/	AG	COMM	DOM	TOTAL DELIVERED IN SMRW	LOSS 8/	TOTAL USE IN SMRW	FROM SMRW 9/	REUSE IN SMRW	FROM U.S. NWS 10/	EXPORT FROM SMRW
2022																		
OCT	125	0	614	738	112	259	372	12	165	21	139	325	47	372	69	1	0.09	67
NOV	140	0	385	525	126	161	287	14	111	18	119	248	40	287	68	1	0.04	67
DEC	169	0	258	427	153	78	231	16	75	15	104	194	37	231	61	1	0.05	60
2023																		
JAN	171	0	94	265	154	12	166	17	33	13	89	135	31	166	76	1	0.07	75
FEB	152	0	161	313	124	0	124	28	15	11	72	99	25	124	45	0	0.08	45
MAR	286	0	40	325	136	0	136	149	19	9	73	101	36	136	116	0	0.40	116
APR	228	0	247	475	125	0	125	104	10	9	75	94	31	125	67	1	0.04	67
MAY	166	0	352	518	151	54	205	15	62	13	97	172	33	205	73	1	0.03	71
JUNE	113	0	513	627	103	145	248	11	88	15	111	214	33	248	57	2	0.04	56
JULY	220	0	611	831	201	122	323	19	129	19	127	275	48	323	66	2	0.02	64
AUG	369	0	376	745	334	65	399	35	161	22	145	329	70	399	90	2	0.03	88
SEPT	383	0	327	710	333	0	333	50	116	20	135	271	61	333	77	2	0.02	76
TOTAL	2,520	0	3,978	6,498	2,051	896	2,947	469	984	185	1,286	2,456	491	2,947	865	12	0.90	852

1/ Totals may not add due to rounding.

2/ CUP metered deliveries to FPUD as measured at the point of delivery.

3/ Diverted under Permit No. 11356. Delivery normally occurs 30 days after diversions.

4/ Includes 84.0 AF from Capra Well located in San Luis Rey Watershed and remaining import supply from San Diego County Water Authority.

5/ A portion of the District is outside the SMRW.

6/ Summation of CUP and Lake Skinner deliveries (less brine) produced for use within the SMRW. Includes a total of 0.6 AF of CUP operational bypass/discharges.

7/ SMRW native water exported for use or discharge outside of watershed. Includes 230.4 AF of CUP brine discharged and 105.0 AF sent to Red Mountain Reservoir for later use.

8/ Loss percentage within the SMRW is determined using the calculation to determine District-wide unaccounted for water by comparing District-wide annual supply and customer deliveries, and is assumed to be constant for all months (9.58%). Includes CUP operational bypass/discharges.

9/ Includes brine originating from treatment of CUP water, when applicable.

10/ United States Naval Weapons Station Seal Beach, Detachment Fallbrook.

TABLE A-4

SANTA MARGARITA RIVER WATERSHED
MONTHLY WATER PRODUCTION AND USE

METROPOLITAN WATER DISTRICT
DELIVERIES IN DOMENIGONI VALLEY
2022-23
Quantities in Acre Feet[1/]

	PRODUCTION			USE					
MONTH YEAR	WELLS	IMPORT TO SMRW	TOTAL IN SMRW	AG	COMM/ DOM 2/	GW RECHARGE	TOTAL DELIVERED	LOSS 3/	TOTAL USE
2022									
OCT	0	102	102	102	0	0	102	0	102
NOV	0	58	58	58	0	0	58	0	58
DEC	0	21	21	21	0	0	21	0	21
2023									
JAN	0	9	9	9	0	0	9	0	9
FEB	0	28	28	28	0	0	28	0	28
MAR	0	6	6	6	0	0	6	0	6
APR	0	93	93	93	0	0	93	0	93
MAY	0	102	102	102	0	0	102	0	102
JUNE	0	99	99	99	0	0	99	0	99
JULY	0	129	129	129	0	0	129	0	129
AUG	0	153	153	153	0	0	153	0	153
SEPT	0	124	124	124	0	0	124	0	124
TOTAL	0	925	925	925	0	0	925	0	925

1/ Totals may not add due to rounding.
2/ Construction water.
3/ Points of delivery located at metered pumps on San Diego Canal and thus the losses in the MWD system are zero.

TABLE A-5

SANTA MARGARITA RIVER WATERSHED

MONTHLY WATER PRODUCTION AND USE

PECHANGA INDIAN RESERVATION

2022-23

Quantities in Acre Feet[1/]

	PRODUCTION				USE 5/					
MONTH YEAR	WELLS ON RESERVATION 2/	DELIVERED GROUNDWATER FROM RCWD 3/	RECYCLED WATER FROM EMWD 4/	TOTAL	AG	COMM	DOM	TOTAL DELIVERED	LOSS 6/	TOTAL USE
2022										
OCT	51	0	69	120	0	101	15	116	3	120
NOV	40	0	23	63	0	50	10	60	3	63
DEC	31	9	19	58	0	44	8	52	6	58
2023										
JAN	29	0	9	37	0	33	6	39	(2)	37
FEB	22	12	10	45	0	36	6	43	2	45
MAR	29	7	8	44	0	40	7	47	(3)	44
APR	31	16	20	68	0	52	8	61	8	68
MAY	41	5	41	88	0	77	12	89	(1)	88
JUNE	38	0	46	84	0	77	10	87	(3)	84
JULY	15	45	86	146	0	131	15	146	(1)	146
AUG	29	39	70	138	0	113	13	126	12	138
SEPT	39	7	55	101	0	89	14	103	(3)	101
TOTAL	395	140	456	991	0	844	125	970	22	991

1/ Totals may not add due to rounding.

2/ Total production attributed to Eduardo, Eagle III, and Kelsey wells.

3/ Water provided from RCWD Well Nos. 119, 122, and 211.

4/ Recycled water provided by EMWD via Wheeling Agreement with RCWD shown as a component of production for Table A-5 only to illustrate water budget for Reservation. Actual production for Watershed accounted for on Table A-1 and Table 7.1 for EMWD.

5/ Water use definitions for all major water purveyors were updated and reconciled for WY 2014. The updated definitions are provided in Table 7.2. Based upon the revised definitions adopted by the Watermaster, Pechanga had no agricultural use in the SMR Watershed during WY 2023.

6/ Loss determined as Total Production less Total Delivered.

TABLE A-6

SANTA MARGARITA RIVER WATERSHED

MONTHLY WATER PRODUCTION AND USE

RAINBOW MUNICIPAL WATER DISTRICT

2022-23

Quantities in Acre Feet[1/]

	PRODUCTION			USE 2/					
MONTH YEAR	LOCAL	IMPORT TO DISTRICT	TOTAL IN SMRW	AG	COMM	DOM	TOTAL DELIVERED	LOSS 3/	TOTAL USE
2022									
OCT	0	1,369	109	82	3	16	101	7	109
NOV	0	1,093	69	48	2	14	64	5	69
DEC	0	528	52	35	1	12	48	3	52
2023									
JAN	0	217	41	25	1	11	38	3	41
FEB	0	339	29	18	1	8	27	2	29
MAR	0	263	35	23	1	9	33	2	35
APR	0	698	30	19	1	8	28	2	30
MAY	0	954	57	42	2	9	53	4	57
JUNE	0	1,241	52	35	3	11	49	4	52
JULY	0	1,617	77	56	3	13	72	5	77
AUG	0	1,352	112	84	4	16	104	8	112
SEPT	0	1,218	114	88	3	15	106	8	114
TOTAL	0	10,890	776	555	26	143	724	52	776

1/ Totals may not add due to rounding.

2/ Water use definitions for all major water purveyors were updated and reconciled for Water Year 2014. The updated definitions are provided in Table 7.2.

3/ Loss percentage within the SMRW is determined using the calculation to determine District-wide unaccounted for water by comparing District-wide annual supply and customer deliveries, and is assumed to be constant for all months.

TABLE A-7

SANTA MARGARITA RIVER WATERSHED

MONTHLY WATER PRODUCTION AND USE

RANCHO CALIFORNIA WATER DISTRICT

2022-23

Quantities in Acre Feet[1/]

	PRODUCTION							USE								VAIL	RECYCLED WATER
MONTH YEAR	WELLS 2/	EXPORT 3/	NET WELLS	IMPORT 4/	EXPORT 5/	NET IMPORT	TOTAL	AG	COMM	DOM	SMR RELEASE 6/	IMPORT RECHARGE TO STORAGE 7/	TOTAL USE	LOSS 8/	TOTAL	RELEASE AND RECHARGE 9/	REUSED IN SMRW 10/
2022																	
OCT	1,615	18	1,597	3,268	38	3,230	4,827	1,819	834	2,364	257	(170)	5,104	(277)	4,827	18	288
NOV	1,735	16	1,720	1,549	16	1,532	3,252	1,025	597	1,801	417	(164)	3,676	(424)	3,252	0	269
DEC	1,270	12	1,259	1,076	12	1,064	2,322	760	392	1,425	171	(170)	2,578	(256)	2,322	0	244
2023																	
JAN	280	3	278	1,000	14	986	1,264	204	297	1,189	6	(170)	1,526	(262)	1,264	0	312
FEB	806	5	801	950	8	943	1,743	223	272	955	74	(153)	1,371	373	1,743	0	171
MAR	241	2	239	1,151	10	1,141	1,380	160	249	969	3	(199)	1,183	197	1,380	0	375
APR	835	4	830	1,768	10	1,758	2,588	180	281	1,023	217	(135)	1,566	1,022	2,588	0	315
MAY	1,627	12	1,615	2,545	18	2,527	4,142	903	515	1,578	515	(170)	3,342	800	4,142	36	336
JUN	1,863	16	1,846	3,109	25	3,084	4,931	1,227	619	1,816	683	(164)	4,182	749	4,931	54	307
JUL	1,818	14	1,804	4,891	40	4,851	6,655	1,679	820	2,319	619	(127)	5,311	1,344	6,655	12	306
AUG	1,527	17	1,509	4,078	50	4,029	5,538	2,215	965	2,623	421	(127)	6,097	(559)	5,538	20	314
SEP	1,794	17	1,778	3,366	30	3,336	5,113	1,397	811	2,394	518	0	5,119	(6)	5,113	3	288
TOTAL	15,411	136	15,275	28,751	270	28,481	43,756	11,792	6,653	20,457	3,900	(1,748)	41,054	2,702	43,756	142	3,524

1/ Totals may not add due to rounding.

2/ Wells recovered 31,844 AF (including 10.9 AF stream releases and 141.7 AF of Permit 7032 re-diversion). Does not include 14,528 AF of direct recharge/recovery, 1,748 AF of cyclic withdrawal, and 16.4 AF from wells contributing to the recycled system. For WY 2023, there were an additional 140.42 AF of deliveries to Pechanga Indian Reservation and is shown on Table A-5.

3/ Groundwater used in San Mateo Watershed.

4/ Includes 11,124 AF direct use (6,815.1 AF to Rancho Division and 4,308.4 AF to Santa Rosa Division); 14,528 AF direct recharge; and 3,099 AF from MWD WR-34.

5/ Import used in San Mateo Watershed.

6/ 789.6 AF from the potable connection located at WR-34, 6.2 AF into Murrieta Creek from Wells 102, 106 and 108; 4.7 AF into Temecula Creek from Well 109; and 3,099.2 AF from MWD Outlet WR-34.

7/ No cyclic deposit for WY 2023. A total of 1,748 AF of cyclic withdrawal during the water year.

8/ Loss includes un-accounted for water and is equal to total production less total use.

9/ Vail releases and the related Vail recharge are computed as Total Release less Inflow to be bypassed.

10/ Does not include 1,236.4 AF recycled water purchased from EMWD.

TABLE A-8

SANTA MARGARITA RIVER WATERSHED

MONTHLY WATER PRODUCTION AND USE

U.S.M.C. - CAMP PENDLETON

2022-23

Quantities in Acre Feet[1/]

	PRODUCTION			USE 2/						WASTEWATER 5/					EXPORTS		
MONTH YEAR	AG LOCAL	CAMP SUPPLY	TOTAL 11/	AGRICULTURE IN SMRW 3/	AGRICULTURE OUT SMRW 3/	CAMP SUPPLY IN SMRW 4/	CAMP SUPPLY OUT SMRW 4/	TOTAL EXPORT	TOTAL IN SMRW	RECYCLED USE IN SMRW 6/	RECYCLED USE OUT SMRW 6/	EXPORTED TO OCEANSIDE OUTFALL RECYCLED 7/	EXPORTED TO OCEANSIDE OUTFALL BRINE 8/	TOTAL	TOTAL 9/	WASTEWATER RETURNS 10/	NET EXPORT
2022																	
OCT	0	566	566	0	0	211	291	291	211	0	1	232	63	296	587	140	448
NOV	0	510	510	0	0	189	261	261	189	0	0	205	61	266	527	125	402
DEC	0	430	430	0	0	160	220	220	160	0	0	182	50	232	452	106	346
2023																	
JAN	0	320	320	0	0	118	163	163	118	0	0	148	39	187	349	78	271
FEB	0	392	392	0	0	147	203	203	147	0	0	182	42	224	426	97	329
MAR	0	398	398	0	0	147	203	203	147	1	0	233	47	281	483	98	385
APR	0	444	444	0	0	164	226	226	164	2	0	195	54	252	476	109	367
MAY	0	614	614	0	0	223	308	308	223	2	0	185	82	270	576	148	428
JUNE	0	677	677	0	0	248	343	343	248	2	0	197	86	285	626	165	461
JULY	0	767	767	0	0	280	386	386	280	6	0	186	102	293	673	185	488
AUG	0	690	690	0	0	254	351	351	254	3	0	177	85	265	612	168	444
SEPT	0	675	675	0	0	243	336	336	243	10	20	169	96	295	621	161	460
TOTAL	0	6,482	6,482	0	0	2,384	3,291	3,291	2,384	27	21	2,290	807	3,145	6,409	1,580	4,828

1/ Totals may not add due to rounding.

2/ Use equals Production less Brine byproduct from Southern Advanced Water Treatment Plant beginning February 2013. Assumes no other losses.

3/ There was no agricultural irrigation in WY 2023.

4/ Camp Supply water use is divided with 42.0% used inside the SMRW and 58.0% used outside the SMRW.

5/ All southern wastewater treated at Southern Regional Tertiary Treatment Plant beginning December 2008.

6/ Recycled use for irrigation of golf course, landscaping and park areas.

7/ Recycled water not used but rather exported to Oceanside Outfall.

8/ Brine from Southern Advanced Water Treatment Plant exported to Oceanside Outfall.

9/ Agriculture and Camp Supply use outside the SMRW, recycled use outside the SMRW, plus Oceanside Outfall.

10/ Percent Camp Supply reclaimed estimated as (3,145 - 807) AF divided by (5,675 - 807) AF equals 48.0%. Wastewater returns estimated at 48.0% of Camp Supply use outside of SMRW.

11/ Includes approximatly 1.4 AF proudced from the SWFL Seep Wells #1, #2, and #3. Does not include 2,520 AF of CUP water delivered to FPUD.

TABLE A-9

SANTA MARGARITA RIVER WATERSHED

MONTHLY WATER PRODUCTION AND USE

U. S. NAVAL WEAPONS STATION SEAL BEACH, DETACHMENT FALLBROOK

2022-23

Quantities in Acre Feet[1/]

	PRODUCTION			USE				WASTEWATER
MONTH YEAR	LOCAL	IMPORT TO SMRW 2/	TOTAL	AG	COMM/DOM	LOSS 3/	TOTAL USE	EXPORTED
2022								
OCT	0	3	3	0	3	0	3	0.09
NOV	0	6	6	0	5	1	6	0.04
DEC	0	3	3	0	2	0	3	0.05
2023								
JAN	0	2	2	0	1	0	2	0.07
FEB	0	1	1	0	1	0	1	0.08
MAR	0	2	2	0	1	0	2	0.40
APR	0	3	3	0	3	0	3	0.04
MAY	0	3	3	0	2	0	3	0.03
JUNE	0	2	2	0	2	0	2	0.04
JULY	0	2	2	0	2	0	2	0.02
AUG	0	3	3	0	2	0	3	0.03
SEPT	0	6	6	0	5	1	6	0.02
TOTAL	0	35	35	0	31	3	35	0.90

1/ Totals may not add due to rounding.

2/ Import via FPUD.

3/ Loss = 10% of Use.

TABLE A-10

SANTA MARGARITA RIVER WATERSHED

MONTHLY WATER PRODUCTION AND USE

WESTERN MUNICIPAL WATER DISTRICT
MURRIETA DIVISION

2022-23

Quantities in Acre Feet[1/]

	PRODUCTION			USE 2/					
MONTH YEAR	WELLS	IMPORT	TOTAL	AG	COMM	DOM	TOTAL DELIVERED	LOSS 3/	TOTAL USE
2022									
OCT	100	100	200	0	61	124	185	15	200
NOV	92	55	147	0	44	100	144	2	147
DEC	89	33	122	0	36	84	119	3	122
2023									
JAN	97	7	103	0	28	71	99	4	103
FEB	40	68	108	0	25	63	89	19	108
MAR	0	97	97	0	28	71	99	(1)	97
APR	0	153	153	0	36	89	126	27	153
MAY	0	182	182	0	52	121	173	9	182
JUNE	37	168	206	0	57	134	191	15	206
JULY	39	218	257	0	70	159	230	27	257
AUG	38	201	239	0	72	151	223	15	239
SEPT	36	171	206	0	38	79	117	90	206
TOTAL	567	1,452	2,019	0	547	1,247	1,794	225	2,019

1/ Totals may not add due to rounding.

2/ Water use definitions for all major water purveyors were updated and reconciled for Water Year 2014. The updated definitions are provided in Table 7.2. Based upon the revised definitions adopted by the Watermaster, WMWD had no agricultural use in the SMR Watershed during WY 2023.

3/ Loss = Total Production less Total Delivered

TABLE A-11

SANTA MARGARITA RIVER WATERSHED

MISCELLANEOUS WATER PRODUCTION AND IMPORTS

2022-23

Quantities in Acre Feet

	IMPORT	PRODUCTION						
MONTH YEAR	WESTERN MWD IMPORTS TO IMPROVEMENT DISTRICT A	ANZA MUTUAL WATER COMPANY	RANCHO CALIFORNIA OUTDOOR RESORTS 1/	QUIET OAKS MOBILE HOME PARK 1/, 2/	LAKE RIVERSIDE ESTATES	JOJOBA HILLS SKP RESORT	COTTONWOOD ELEMENTARY 3/,4/	HAMILTON SCHOOLS 5/
2022								
OCT	2.91	3.32	24.76	1.20	24.69	5.00	1.01	1.57
NOV	2.14	1.78	9.52	0.80	4.49	3.58	0.53	0.48
DEC	1.01	2.28	6.90	0.50	3.27	3.54	0.63	0.31
2023								
JAN	0.87	2.10	5.99	0.60	3.45	2.22	0.00	0.47
FEB	1.05	2.53	5.00	0.80	0.33	2.00	0.36	0.00
MAR	1.47	1.81	10.89	1.20	0.28	1.96	0.00	0.29
APR	1.92	2.92	21.18	1.50	2.42	3.07	0.11	0.30
MAY	2.18	2.67	25.16	1.70	42.08	3.74	0.83	0.87
JUNE	2.20	4.32	21.78	1.90	58.36	4.06	0.27	0.99
JULY	3.50	4.78	21.51	2.20	54.80	4.98	1.99	1.12
AUG	2.84	4.99	20.01	2.00	43.16	4.55	1.99	0.86
SEPT	3.24	4.12	12.51	1.70	52.11	4.28	1.84	0.68
TOTAL	25.34	37.63	185.21	16.10	289.44	42.98	9.56	7.93

1/ Annual production estimated based on partial-year meter readings, monthly quantities calculated assuming typical monthly distribution.
2/ Monthly quantities calculated using monthly distribution estimate based on total annual gallons produced.
3/ Cottonwood Elementary is in the Hemet Unified School District, located in Aguanga and within the Watershed Boundary.
4/ Water use estimated by Watermaster office due to meter failure.
5/ Includes both Hamilton High School and Hamilton Elementary in Anza. Both schools are in the Hemet Unified School District and are within the Watershed Boundary

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SANTA MARGARITA RIVER WATERSHED

ANNUAL WATERMASTER REPORT

WATER YEAR 2022-23

APPENDIX B

WATER PRODUCTION AND USE

WATER YEAR 1965-66 TO WATER YEAR 2022-23

JULY 2025

TABLE B-1

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

EASTERN MUNICIPAL WATER DISTRICT

Quantities in Acre Feet[1/]

	PRODUCTION					USE 3/						RECYCLED WATER				
WATER YEAR	WELLS	IMPORT 2/	EXPORT FROM SMRW	NET IMPORT	TOTAL	AG	COMM	DOM	TOTAL	LOSS	TOTAL USE	REUSE IN SMRW 4/	REUSE OUTSIDE SMRW	OTHER REUSE 5/	RELEASE TO RIVER	RECHARGE	TOTAL
1966	0	1,604	0	1,604	1,604	1,520	0	4	1,524	80	1,604	0	0		0	100	100
1967	0	1,630	0	1,630	1,630	1,544	0	4	1,548	82	1,630	0	0		0	100	100
1968	0	1,464	0	1,464	1,464	1,386	0	5	1,391	73	1,464	0	0		0	100	100
1969	0	1,741	0	1,741	1,741	1,648	0	6	1,654	87	1,741	0	0		0	100	100
1970	0	1,417	0	1,417	1,417	1,340	0	7	1,346	71	1,417	0	0		0	101	101
1971	0	1,383	0	1,383	1,383	1,306	0	8	1,314	69	1,383	0	0		0	119	119
1972	0	1,470	0	1,470	1,470	1,388	0	8	1,396	74	1,470	0	0		0	242	242
1973	0	1,533	0	1,533	1,533	1,447	0	10	1,456	77	1,533	0	0		0	217	217
1974	0	1,601	0	1,601	1,601	1,511	0	10	1,521	80	1,601	0	0		0	193	193
1975	0	1,969	0	1,969	1,969	1,859	0	11	1,871	98	1,969	0	0		0	253	253
1976	145	2,493	0	2,493	2,638	2,356	0	150	2,506	132	2,638	134	0		0	155	289
1977	431	2,947	0	2,947	3,378	2,723	64	423	3,209	169	3,378	244	0		0	70	314
1978	375	2,551	0	2,551	2,926	2,409	0	371	2,780	146	2,926	300	0		0	75	375
1979	289	1,894	0	1,894	2,183	1,784	0	290	2,074	109	2,183	350	0		0	147	497
1980	281	1,192	0	1,192	1,473	1,116	0	283	1,399	74	1,473	375	0		0	220	595
1981	282	716	0	716	998	663	0	285	948	50	998	375	0		0	304	679
1982	321	1,112	0	1,112	1,433	1,038	0	323	1,361	72	1,433	375	0		0	386	761
1983	106	1,211	0	1,211	1,317	1,131	0	120	1,251	66	1,317	375	0		0	466	841
1984	236	699	0	699	935	644	0	244	888	47	935	400	0		0	525	925
1985	314	679	0	679	993	624	0	319	943	50	993	450	0		0	565	1,015
1986	229	760	0	760	989	700	0	239	940	49	989	600	0		0	509	1,109
1987	89	1,155	0	1,155	1,244	638	0	543	1,182	62	1,244	650	0		0	554	1,204

TABLE B-1

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

EASTERN MUNICIPAL WATER DISTRICT

Quantities in Acre Feet[1/]

	PRODUCTION					USE 3/						RECYCLED WATER					
WATER YEAR	WELLS	IMPORT 2/	EXPORT FROM SMRW	NET IMPORT	TOTAL	AG	COMM	DOM	TOTAL	LOSS	TOTAL USE	REUSE IN SMRW 4/	REUSE OUTSIDE SMRW	OTHER REUSE 5/	RELEASE TO RIVER	RECHARGE	TOTAL
1988	4	2,047	0	2,047	2,051	524	0	1,424	1,948	103	2,051	650	0		0	650	1,300
1989	685	3,746	0	3,746	4,431	1,146	0	3,064	4,209	222	4,431	1,058	0		0	1,636	2,694
1990	492	8,578	2,977	5,601	6,093	978	0	4,810	5,788	305	6,093	1,567	0		0	2,160	3,727
1991	456	16,621	7,142	9,479	9,935	851	0	8,587	9,438	497	9,935	1,282	0		0	2,272	3,554
1992	527	13,486	4,893	8,593	9,120	29	0	8,635	8,664	456	9,120	1,323	0		245	2,385	3,953
1993	524	7,287	1,894	5,393	5,917	36	0	5,585	5,621	296	5,917	1,709	990	(285)	192	2,020	4,626
1994	232	10,082	2,932	7,150	7,382	0	0	7,013	7,013	369	7,382	2,687	2,465	694	0	0	5,846
1995	182	11,539	6,914	4,625	4,807	16	0	4,551	4,567	240	4,807	2,154	1,357	2,551	0	0	6,062
1996	299	11,730	6,770	4,960	5,259	0	0	4,996	4,996	263	5,259	2,979	2,473	520	0	0	5,972
1997	408	5,093	1,809	3,284	3,692	0	0	5,226	5,226	(1,534)	3,692	3,126	2,319	882	0	0	6,327
1998	240	6,609	1,492	5,117	5,357	0	0	5,090	5,090	267	5,357	2,949 *6/*	2,139	2,374	0	0	7,462
1999	669	7,118	2,719	4,327	4,996	0	0	4,746	4,746	250	4,996	3,741 *7/*	3,070	1,063	0	0	7,874
2000	630	9,179	1,923	7,256	7,886	0	0	7,493	7,493	393	7,886	4,669 *8/*	3,664	(15)	0	0	8,318
2001	355	9,219	3,271	5,948	6,303	0	0	5,989	5,989	314	6,303	4,571 *9/*	3,249	1,208	0	0	9,028
2002	13	12,777	4,954	8,117	8,130	0	0	7,724	7,724	406	8,130	4,843 *10/*	4,863	462	0	0	10,168
2003	0	14,175	5,113	9,062	9,062	0	0	8,610	8,610	452	9,062	3,542 *11/*	2,955	4,681	0	0	11,178
2004	0	17,381	8,243	9,138	9,138	0	0	8,960	8,960	178	9,138	3,221	3,688	5,427	0	0	12,336
2005	0	16,336	5,478	10,858	10,858	0	0	10,749	10,749	109	10,858	2,664 *12/*	2,690	8,986	0	0	14,340
2006	0	21,034	6,873	14,161	14,161	0	0	13,453	13,453	708	14,161	3,108 *13/*	3,510	7,396	0	0	14,014
2007	0	21,161	5,763	15,398	15,398	0	0	14,628	14,628	770	15,398	3,550 *14/*	5,960	4,593	0	0	14,103
2008	0	18,714	3,762	14,952	14,952	0	0	14,204	14,204	748	14,952	1,450	5,925	6,864	0	0	14,239
2009	0	16,919	2,447	14,472	14,472	0	0	13,748	13,748	724	14,472	2,615	6,786	5,241	0	0	14,642
2010	0	15,024	1,472	13,552	13,552	0	0	12,874	12,874	678	13,552	2,882	7,026	4,803	0	0	14,711
2011	0	14,675	283	14,392	14,392	131	2,879	10,662	13,672	720	14,392	2,561	7,241	5,140	0	0	14,942
2012	0	16,419	1,356	15,063	15,063	96	3,137	11,076	14,309	754	15,063	2,364	8,025	4,525	0	0	14,914
2013	0	16,208	457	15,751	15,751	117	3,388	11,459	14,964	787	15,751	2,937	8,316	3,459	0	0	14,712
2014	0	23,935	8,051	15,884	15,884	142	3,553	11,395	15,090	794	15,884	2,937	8,117	3,627	0	0	14,681
2015	0	15,448	1,571	13,877	13,877	144	2,982	10,057	13,183	694	13,877	2,717	7,002	4,696	0	0	14,415
2016	0	14,123	521	13,602	13,602	140	3,399	9,383	12,922	680	13,602	3,278	6,952	3,826	0	0	14,056
2017	0	14,252	811	13,441	13,441	311	2,780	9,678	12,769	672	13,441	2,631	7,139	4,843	0	0	14,613
2018	0	15,836	829	15,007	15,007	413	3,290	10,554	14,257	750	15,007	3,163	7,902	3,016	0	0	14,081
2019	0	14,963	1,509	13,453	13,453	329	2,684	9,768	12,781	673	13,453	2,849	5,439	6,683	0	0	14,971
2020	0	16,319	1,713	14,606	14,606	350	2,778	10,747	13,876	730	14,606	2,708	6,064	6,862	0	0	15,634
2021	0	18,645	2,096	16,549	16,549	341	3,632	11,748	15,722	827	16,549	3,400	7,343	4,496	0	0	15,239

TABLE B-1

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

EASTERN MUNICIPAL WATER DISTRICT

Quantities in Acre Feet[1/]

	PRODUCTION					USE 3/						RECYCLED WATER					
WATER YEAR	WELLS	IMPORT 2/	EXPORT FROM SMRW	NET IMPORT	TOTAL	AG	COMM	DOM	TOTAL	LOSS	TOTAL USE	REUSE IN SMRW 4/	REUSE OUTSIDE SMRW	OTHER REUSE 5/	RELEASE TO RIVER	RECHARGE	TOTAL
2022	0	16,365	407	15,958	15,958	297	3,371	11,492	15,160	798	15,958	3,557	4,888	6,728	0	0	15,173
2023	0	14,451	733	13,718	13,718	201	2,605	10,226	13,032	686	13,718	2,277	3,192	11,267	0	0	16,736

1/ Totals may not add due to rounding.
2/ Does not include deliveries to RCWD, EVMWD and WMWD.
3/ Beginning in 2011, Use reported based on metered customer demands. Prior years reporting based on supply meter data and is not complete for all categories.
4/ Reuse within Watershed includes noted amount of sewage distributed to RCWD for treatment by RCWD, recycled water sold to RCWD for delivery to RCWD customers, and beginning in 2009, recycled water sold to the Pechanga Band. Beginning in 2014, also includes recycled water delivered to EVMWD.
5/ Other Reuse includes changes in storage in Winchester and Sun City storage ponds, evaporation and percolation losses, and discharges to the Santa Ana Watershed.
6/ Includes 905 AF of sewage diverted to RCWD.
7/ Includes 1,159 AF of sewage diverted to RCWD.
8/ Includes 1,162 AF of sewage diverted to RCWD.
9/ Includes 1,201 AF of sewage diverted to RCWD.
10/ Includes 1,219 AF of sewage diverted to RCWD.
11/ Includes 1,056 AF of sewage diverted to RCWD.
12/ Includes 574 AF of sewage diverted to RCWD.
13/ Includes 910 AF of sewage diverted to RCWD.
14/ Includes 797 AF of sewage diverted to RCWD.

TABLE B-2

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

Quantities in Acre Feet[1/]

	PRODUCTION			USE 2/						WASTEWATER EXPORTED			RECYCLED WATER 4/		
WATER YEAR	WELLS	IMPORT	TOTAL	AG	COMM	DOM	TOTAL DELIVERED	LOSS 3/	TOTAL USE	UNTREATED WASTEWATER	REUSE OUTSIDE SMRW	TOTAL WASTEWATER EXPORT	REUSE INSIDE SMRW	REUSE OUTSIDE SMRW	TOTAL REUSE
1966															
1967															
1968															
1969															
1970															
1971															
1972															
1973															
1974															
1975															
1976															
1977															
1978	0	569	569				569	0	569						
1979	0	712	712				712	0	712						
1980	0	696	696				696	0	696						
1981	0	798	798				798	0	798						
1982	0	678	678				678	0	678						
1983	0	658	658				658	0	658						
1984	0	816	816				816	0	816						
1985	0	808	808				808	0	808						
1986	0	882	882				882	0	882						
1987	0	938	938				938	0	938	4					
1988	0	1,032	1,032				1,032	0	1,032	55					
1989	0	1,341	1,341				1,341	0	1,341	74					
1990	0	2,255	2,255				2,255	0	2,255	114					
1991	0	2,421	2,421				2,421	0	2,421	134					

TABLE B-2

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

Quantities in Acre Feet[1/]

	PRODUCTION			USE 2/						WASTEWATER EXPORTED			RECYCLED WATER 4/		
WATER YEAR	WELLS	IMPORT	TOTAL	AG	COMM	DOM	TOTAL DELIVERED	LOSS 3/	TOTAL USE	UNTREATED WASTEWATER	REUSE OUTSIDE SMRW	TOTAL WASTEWATER EXPORT	REUSE INSIDE SMRW	REUSE OUTSIDE SMRW	TOTAL REUSE
1992	0	2,190	2,190				2,190	0	2,190	140					
1993	0	2,964	2,964	539	84	2,341	2,964	0	2,964	150					
1994	0	3,232	3,232	687	93	2,452	3,232	0	3,232	170					
1995	0	3,127	3,127	520	100	2,507	3,127	0	3,127	185					
1996	0	4,197	4,197	871	109	3,217	4,197	0	4,197	213					
1997	0	4,296	4,296	848	118	3,330	4,296	0	4,296	226					
1998	0	5,100	5,100	667	1,396	3,037	5,100	0	5,100	247					
1999	0	6,133	6,133	921	1,626	3,586	6,133	0	6,133	254					
2000	0	7,174	7,174	1,089	1,971	4,114	7,174	0	7,174	279					
2001	0	6,215	6,215	925	1,815	3,475	6,215	0	6,215	310					
2002	0	7,596	7,596	1,173	1,902	4,521	7,596	0	7,596	412					
2003	0	7,091	7,091	63	2,665	4,363	7,091	0	7,091	483					
2004	0	8,438	8,438	96	3,238	5,104	8,438	0	8,438	600					
2005	0	8,215	8,215	104	3,044	5,067	8,215	0	8,215	927					
2006	0	9,819	9,819	127	4,118	5,574	9,819	0	9,819	938					
2007	0	10,811	10,811	150	4,509	6,152	10,811	0	10,811	837					
2008	0	9,951	9,951	115	4,149	5,687	9,951	0	9,951	901					
2009	0	9,075	9,075	147	2,015	6,913	9,075	0	9,075	1,069					
2010	0	7,926	7,926	133	1,718	6,075	7,926	0	7,926	1,120					
2011	0	7,425	7,425	94	1,517	5,539	7,150	275	7,425	1,130					
2012	0	7,398	7,398	27	1,723	5,426	7,176	222	7,398	1,205					
2013	0	7,158	7,158	16	1,637	5,227	6,880	278	7,158	1,245					
2014	0	7,413	7,413	16	1,693	5,601	7,310	103	7,413	1,271	36	1,307	53	36	89
2015	0	5,992	5,992	12	1,165	4,472	5,649	343	5,992	1,237	91	1,328	108	91	199
2016	0	5,889	5,889	10	1,147	4,396	5,553	336	5,889	1,270	161	1,431	109	161	270
2017	0	5,970	5,970	12	1,291	4,488	5,791	179	5,970	1,311	157	1,468	99	157	256

TABLE B-2

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

Quantities in Acre Feet[1/]

	PRODUCTION			USE 2/						WASTEWATER EXPORTED			RECYCLED WATER 4/		
WATER YEAR	WELLS	IMPORT	TOTAL	AG	COMM	DOM	TOTAL DELIVERED	LOSS 3/	TOTAL USE	UNTREATED WASTEWATER	REUSE OUTSIDE SMRW	TOTAL WASTEWATER EXPORT	REUSE INSIDE SMRW	REUSE OUTSIDE SMRW	TOTAL REUSE
2018	0	6,378	6,378	14	1,416	4,846	6,276	102	6,378	1,312	176	1,489	107	176	283
2019	0	5,870	5,870	10	1,200	4,413	5,623	247	5,870	1,346	138	1,484	96	138	233
2020	0	6,008	6,008	11	1,199	4,690	5,900	108	6,008	1,360	237	1,598	95	237	332
2021	0	6,606	6,606	7	1,364	4,971	6,342	264	6,606	1,368	414	1,782	108	414	522
2022	0	6,244	6,244	5	1,333	4,719	6,056	187	6,244	1,178	472	1,649	112	472	584
2023	0	5,200	5,200	4	1,039	4,090	5,133	68	5,200	710	259	969	78	259	337

1/ Totals may not add due to rounding.

2/ Water use definitions for all major water purveyors were updated and reconciled for WY 2014. The updated definitions are provided in Table 7.2.

3/ For period prior to 2011, assumes no loss. For 2011 to present, loss percentage within the SMRW is determined using the calculation to determine District-wide unaccounted for water by comparing District-wide annual supply and customer deliveries, and is assumed to be constant for all months.

4/ EVMWD receives recycled water treated at the RCWD Santa Rosa Water Reclamation Facility via EMWD Palomar Pipeline through a wheeling agreement.

TABLE B-3.1

SANTA MARGARITA RIVER WATERSHED
ANNUAL WATER PRODUCTION AND USE

FALLBROOK PUBLIC UTILITY DISTRICT
Quantities in Acre Feet[1/]

	PRODUCTION									USE				
WATER YEAR	TOTAL LAKE SKINNER DIVERSIONS	LAKE SKINNER DIVERSIONS DELIVERED	WELLS	TOTAL DISTRICT IMPORT	DELUZ AREA IMPORT	FALLBROOK AREA IMPORT	FALLBROOK SMRW IMPORT	TOTAL SMRW IMPORT	TOTAL SMRW PRODUCTION 2/		AG	COMM/ DOM	TOTAL IN SMRW	LOSS 3/	TOTAL USE IN SMRW
1966			176	11,169	0	11,169	3,351	3,351	3,404	||	2,735	328	3,063	341	3,404
1967			16	9,508	0	9,508	2,852	2,852	2,857	||	2,253	319	2,572	285	2,857
1968			13	11,411	0	11,411	3,423	3,423	3,427	||	2,554	531	3,085	342	3,427
1969			178	9,458	0	9,458	2,837	2,837	2,891	||	1,787	814	2,601	290	2,891
1970			305	11,794	0	11,794	3,538	3,538	3,630	||	2,649	617	3,266	364	3,630
1971			7	11,350	0	11,350	3,405	3,405	3,407	||	2,386	681	3,067	340	3,407
1972			0	13,054	0	13,054	3,916	3,916	3,916	||	2,749	775	3,524	392	3,916
1973			0	10,610	38	10,572	3,172	3,210	3,210	||	2,156	732	2,888	322	3,210
1974			0	12,911	134	12,777	3,833	3,967	3,967	||	2,703	868	3,571	396	3,967
1975			0	11,492	213	11,279	3,384	3,597	3,597	||	2,420	816	3,236	361	3,597
1976			0	13,147	431	12,716	4,196	4,627	4,627	||	3,200	965	4,165	462	4,627
1977			20	13,435	587	12,848	4,625	5,212	5,232	||	3,536	1,174	4,710	522	5,232
1978			97	12,626	651	11,975	4,551	5,202	5,299	||	3,504	1,265	4,769	530	5,299
1979			187	12,865	961	11,904	4,762	5,723	5,910	||	3,820	1,498	5,318	592	5,910
1980			192	13,602	1,191	12,411	5,213	6,404	6,596	||	4,258	1,678	5,936	660	6,596
1981			87	16,878	1,994	14,884	6,549	8,543	8,630	||	5,688	2,144	7,832	798	8,630
1982			0	13,270	1,805	11,465	5,274	7,079	7,079	||	4,614	1,862	6,476	603	7,079
1983			0	12,298	1,969	10,329	4,751	6,720	6,720	||	4,320	1,871	6,191	529	6,720
1984			0	15,429	2,609	12,820	5,897	8,506	8,506	||	5,814	2,077	7,891	615	8,506
1985			0	14,256	2,358	11,898	5,473	7,831	7,831	||	5,187	2,135	7,322	509	7,831
1986			0	15,383	2,794	12,589	5,791	8,585	8,585	||	5,698	2,319	8,017	568	8,585
1987			0	15,313	2,986	12,327	5,670	8,656	8,656	||	5,793	2,281	8,074	582	8,656
1988			28	14,460	2,559	11,901	5,474	8,033	8,061	||	5,181	2,348	7,529	532	8,061
1989			94	16,179	3,007	13,172	6,059	9,066	9,160	||	5,620	2,706	8,326	834	9,160
1990			15	17,568	3,745	13,823	6,358	10,103	10,118	||	6,275	2,878	9,153	965	10,118
1991			46	13,939	2,871	11,068	5,091	7,962	8,008	||	5,146	2,314	7,460	548	8,008
1992			45	13,698	2,950	10,748	4,943	7,893	7,938	||	5,285	2,201	7,486	452	7,938
1993			86	12,695	2,010	10,685	4,915	6,925	7,011	||	4,329	2,349	6,678	333	7,011
1994			83	13,124	2,246	10,878	5,004	7,250	7,333	||	4,282	2,666	6,948	385	7,333
1995			3	11,620	2,208	9,412	4,330	6,538	6,541	||	3,818	2,798	6,316	225	6,541
1996			0	14,168	2,733	11,435	5,260	7,993	7,993	||	4,411	3,247	7,658	335	7,993
1997			0	14,005	2,688	11,317	5,206	7,894	7,894	||	4,351	3,249	7,600	294	7,894
1998			0	11,757	1,803	9,954	4,579	6,382	6,382	||	3,245	2,798	6,043	339	6,382
1999			0	14,307	1,572	12,735	5,858	7,430	7,430	||	3,748	3,271	7,019	411	7,430
2000			0	15,983	2,705	14,478	6,660	9,365	9,365	||	5,138	3,903	9,041	324	9,365

TABLE B-3.1

SANTA MARGARITA RIVER WATERSHED
ANNUAL WATER PRODUCTION AND USE

FALLBROOK PUBLIC UTILITY DISTRICT
Quantities in Acre Feet[1/]

	PRODUCTION									USE				
WATER YEAR	TOTAL LAKE SKINNER DIVERSIONS	LAKE SKINNER DIVERSIONS DELIVERED	WELLS	TOTAL DISTRICT IMPORT	DELUZ AREA IMPORT	FALLBROOK AREA IMPORT	FALLBROOK SMRW IMPORT	TOTAL SMRW IMPORT	TOTAL SMRW PRODUCTION 2/	AG	COMM/ DOM	TOTAL IN SMRW	LOSS 3/	TOTAL USE IN SMRW
2001			0	15,249	2,562	12,687	5,836	8,398	8,398	4,413	3,537	7,950	448	8,398
2002			0	17,422	2,900	14,522	6,680	9,580	9,580	5,185	4,036	9,221	359	9,580
2003			0	15,864	3,393	12,471	5,737	9,130	9,130	6,041	3,737	9,778	(648)	9,130
2004			0	19,640	5,027	14,613	6,722	11,749	11,749	7,018	4,222	11,240	509	11,749
2005	1,261	1,261	0	13,986	3,101	10,885	5,007	8,108	9,369	4,654	3,581	8,235	1,134	9,369
2006	106	106	0	18,297	3,994	14,303	6,579	10,573	10,679	5,958	4,019	9,977	702	10,679
2007	0	0	0	20,750	5,087	15,664	7,205	12,292	12,292	7,271	4,500	11,771	521	12,292
2008	31	31	0	15,508	3,307	12,202	5,613	8,920	8,951	4,492	3,962	8,454	497	8,951
2009	0	0	0	15,355	2,767	12,588	5,790	8,557	8,557	4,151	3,896	8,047	510	8,557
2010	20	20	0	12,752	2,438	10,314	4,754	7,183	7,203	3,576	3,195	6,771	432	7,203

1/ Totals may not add due to rounding.
2/ Total SMRW production equals SMRW Import plus 30% local (1966-1971).
3/ Loss = Total production less total use.

TABLE B-3.2

SANTA MARGARITA RIVER WATERSHED
ANNUAL WATER PRODUCTION AND USE

FALLBROOK PUBLIC UTILITY DISTRICT
Quantities in Acre Feet[1/]

	DISTRICT WIDE PRODUCTION					SMRW PRODUCTION					SMRW USE					
WATER YEAR	CUP WATER DELIVERED 2/	LAKE SKINNER DIVERSIONS DELIVERED 3/	TOTAL DISTRICT IMPORT 4/	TOTAL DISTRICT SUPPLY 5/		SMRW NATIVE 6/	SMRW IMPORT	TOTAL SMRW PRODUCTION	EXPORT 7/		AG	COMM	DOM	TOTAL DELIVERED IN SMRW	LOSS 7/	TOTAL USE IN SMRW
2011		284	11,264	11,548		284	6,234	6,518			3,742	327	1,990	6,059	459	6,518
2012		0	12,579	12,579		0	7,254	7,254			4,261	337	2,060	6,658	596	7,254
2013		0	12,593	12,593		0	7,357	7,357			4,541	300	2,140	6,981	376	7,357
2014		0	13,068	13,068		0	7,578	7,578			4,688	359	2,129	7,176	402	7,578
2015		0	10,639	10,639		0	5,919	5,919			3,434	304	1,826	5,564	355	5,919
2016		0	9,998	9,998		0	5,395	5,395			3,039	218	1,701	4,958	437	5,395
2017		0	8,959	8,959		0	4,576	4,576			2,272	209	1,784	4,265	311	4,576
2018		0	10,200	10,200		0	5,377	5,377			2,839	234	1,932	5,005	373	5,377
2019		207	7,688	7,894		89	3,519	3,608	118		1,618	202	1,562	3,382	226	3,608
2020		0	8,084	8,084		0	3,817	3,817	0		1,830	202	1,464	3,496	321	3,817
2021	98	0	8,566	8,664		98	3,832	3,930	0		1,827	228	1,612	3,668	262	3,930
2022	1,280	0	7,281	8,561		706	3,201	3,907	573		1,574	224	1,536	3,335	572	3,907
2023	2,520	0	3,978	6,498		2,051	896	2,947	469		984	185	1,286	2,456	491	2,947

1/ Totals may not add due to rounding.
2/ CUP metered deliveries to FPUD as measured at the point of delivery. For WY 2021, CUP Water Delivered used for startup and commissioning during construction of the FPUD SMRCUP WTP and not sent out to public water system distribution.
3/ Diverted under Permit No. 11356. Delivery normally occurs 30 days after diversions.
4/ Includes production from Capra Well located in San Luis Rey Watershed and supply from San Diego County Water Authority.
5/ A portion of the District is outside the SMRW.
6/ Summation of CUP and Lake Skinner deliveries (less brine) produced for use within the SMRW.
7/ Loss percentage within the SMRW is determined using the calculation to determine District-wide unaccounted for water by comparing District-wide annual supply and customer deliveries, and is assumed to be constant for all months.
8/ SMRW native water exported for use or discharge outside of watershed.

TABLE B-4

SANTA MARGARITA RIVER WATERSHED

ANNUAL WASTEWATER PRODUCTION AND DISTRIBUTION

FALLBROOK PUBLIC UTILITY DISTRICT

Quantities in Acre Feet[1/]

WATER YEAR	TOTAL WASTEWATER PRODUCTION 2/	PERCENT WASTEWATER FROM SLR WATERSHED 3/	WASTEWATER IMPORTED FROM SLR WATERSHED	PERCENT WASTEWATER FROM SMRW	WASTEWATER FROM SMRW	WASTEWATER REUSED IN SMRW	WASTEWATER FROM U.S. NWS 4/	WASTEWATER EXPORTED FROM SMRW 5/
1966	395	19	75	81	320		0.0	0
1967	460	20	92	80	368		0.0	0
1968	524	20	105	80	419		0.0	0
1969	588	21	123	79	465		0.0	0
1970	652	22	143	78	509		0.0	0
1971	717	22	158	78	559		0.0	0
1972	782	23	180	77	602		0.0	0
1973	847	24	203	76	644		0.0	0
1974	912	25	228	75	684		0.0	0
1975	976	25	244	75	732		0.0	0
1976	1,040	26	270	74	770		0.0	0
1977	1,105	27	298	73	807		0.0	0
1978	1,170	28	328	72	842		0.0	0
1979	1,234	28	346	72	888		0.0	0
1980	1,298	29	376	71	922		0.0	0
1981	1,363	30	409	70	954		0.0	0
1982	1,428	31	443	69	985		0.0	0
1983	1,492	31	463	69	1,029		26.0 E	1,003
1984	1,556	32	498	68	1,058		26.0 E	1,032
1985	1,621	33	535	67	1,086		26.0 E	1,060
1986	1,685	34	573	66	1,112		18.0 P	1,094
1987	1,750	34	595	66	1,155		27.0	1,128
1988	1,815	35	635	65	1,180		25.0	1,155
1989	1,881	36	677	64	1,204		22.0	1,182
1990	1,952	34	664	66	1,298		27.0	1,271
1991	1,622	40	649	60	973		11.0	962
1992	1,730	37	639	63	1,090		7.0	1,083
1993	2,051	38	780	62	1,271		16.0	1,255
1994	1,834	42	761	58	1,073		5.0	1,068
1995	1,941	40	776	60	1,165		11.7	1,153
1996	1,799	42	759	58	1,040		5.0	1,035
1997	1,780	42	753	58	1,027		6.0	1,021
1998	2,297	35	807	65	1,490		8.0	1,482
1999	2,175	36	793	64	1,382		5.0	1,377
2000	2,164	34	738	66	1,426		7.0	1,419
2001	2,191	35	767	65	1,424	24	8.0	1,392
2002	2,061	39	799	61	1,262	28	9.0	1,225
2003	2,276	39	886	61	1,390	21	10.0	1,359
2004	2,199	38	836	62	1,363	26	8.0	1,329
2005	2,505	42	1,048	58	1,457	24	16.0	1,417
2006	2,479	42	1,050	58	1,429	26	8.0	1,395
2007	1,951	52	1,019	48	932	29	12.0	891
2008	1,940	57	1,102	43	838	28	11.0	799

TABLE B-4

SANTA MARGARITA RIVER WATERSHED

ANNUAL WASTEWATER PRODUCTION AND DISTRIBUTION

FALLBROOK PUBLIC UTILITY DISTRICT

Quantities in Acre Feet[1/]

WATER YEAR	TOTAL WASTEWATER PRODUCTION 2/	PERCENT WASTEWATER FROM SLR WATERSHED 3/	WASTEWATER IMPORTED FROM SLR WATERSHED	PERCENT WASTEWATER FROM SMRW	WASTEWATER FROM SMRW	WASTEWATER REUSED IN SMRW	WASTEWATER FROM U.S. NWS 4/	WASTEWATER EXPORTED FROM SMRW 5/
2009	1,900	54	1,028	46	872	31	12.0	829
2010	1,972	51	1,012	49	960	27	7.0	926
2011	2,006	54	1,076	46	930	21	8.0	901
2012	1,955	51	997	49	958	21	9.0	928
2013	1,886	51	963	49	923	20	3.0	900
2014	1,840	50	916	50	924	22	6.0	896
2015	2,006	45	899	55	1,107	19	3.0	1,086
2016	1,581	53	839	47	742	17	1.0	724
2017	1,720	53	913	47	807	15	1.0	791
2018	1,592	53	841	47	751	20	0.2	731
2019	1,697	51	873	49	824	19	1.2	804
2020	1,713	48	828	52	885	23	0.4	862
2021	1,696	53	898	47	798	20	0.4	777
2022	1,683	46	768	54	915	20	0.9	894
2023	1,889	54	1,024	46	865	12	0.9	852

1/ Totals may not add due to rounding.
2/ Measured quantities available for Total Wastewater in WY 1969 and July 1989. All other quantities are estimated (1966-1989).
3/ San Luis Rey Watershed
4/ United States Naval Weapons Station
5/ Prior to 1983, Wastewater was discharged into Fallbrook Creek, located in the SMRW. After 1983, Wastewater was discharged into an ocean outfall located outside the SMRW.
E- Estimated
P- Partial Year Data

TABLE B-5

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

METROPOLITAN WATER DISTRICT
DELIVERIES IN DOMENIGONI VALLEY

Quantities in Acre Feet[1/]

	PRODUCTION			USE					
WATER YEAR	WELLS	IMPORT TO SMRW	TOTAL IN SMRW	AG 4/, 5/	COMM/ DOM 2/	GW RECHARGE	TOTAL DELIVERED	LOSS 3/	TOTAL USE
1966	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0

TABLE B-5

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

METROPOLITAN WATER DISTRICT
DELIVERIES IN DOMENIGONI VALLEY

Quantities in Acre Feet[1/]

	PRODUCTION			USE					
WATER YEAR	WELLS	IMPORT TO SMRW	TOTAL IN SMRW	AG 4/, 5/	COMM/ DOM 2/	GW RECHARGE	TOTAL DELIVERED	LOSS 3/	TOTAL USE
1983	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0
1995	0	547	547	354	193	0	547	0	547
1996	0	1,005	1,005	763	242	0	1,005	0	1,005
1997	0	3,521	3,521	591	2,891	39	3,521	0	3,521
1998	0	5,023	5,023	193	4,403	427	5,023	0	5,023
1999	0	3,781	3,781	404	2,978	399	3,781	0	3,781

TABLE B-5

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

METROPOLITAN WATER DISTRICT
DELIVERIES IN DOMENIGONI VALLEY

Quantities in Acre Feet[1/]

	PRODUCTION			USE					
WATER YEAR	WELLS	IMPORT TO SMRW	TOTAL IN SMRW	AG 4/, 5/	COMM/ DOM 2/	GW RECHARGE	TOTAL DELIVERED	LOSS 3/	TOTAL USE
2000	0	712	712	92	356	264	712	0	712
2001	0	689	689	505	0	184	689	0	689
2002	0	595	595	569	26	0	595	0	595
2003	0	496	495	495	0	0	495	0	495
2004	0	766	766	766	0	0	766	0	766
2005	0	556	556	556	0	0	556	0	556
2006	0	506	506	506	0	0	506	0	506
2007	0	660	660	660	0	0	660	0	660
2008	0	493	493	493	0	0	493	0	493
2009	0	465	465	465	0	0	465	0	465
2010	0	372	372	372	0	0	372	0	372
2011	0	336	336	336	0	0	336	0	336
2012	0	466	466	466	0	0	466	0	466
2013	0	892	892	892	0	0	892	0	892
2014	0	1,074	1,074	1,074	0	0	1,074	0	1,074
2015	0	1,090	1,039	1,090	0	0	1,090	0	1,090
2016	0	1,186	1,186	1,186	0	0	1,186	0	1,186

TABLE B-5

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

METROPOLITAN WATER DISTRICT
DELIVERIES IN DOMENIGONI VALLEY

Quantities in Acre Feet[1/]

	PRODUCTION			USE					
WATER YEAR	WELLS	IMPORT TO SMRW	TOTAL IN SMRW	AG 4/, 5/	COMM/ DOM 2/	GW RECHARGE	TOTAL DELIVERED	LOSS 3/	TOTAL USE
2017	0	1,128	1,128	1,128	0	0	1,128	0	1,128
2018	0	1,194	1,194	1,194	0	0	1,194	0	1,194
2019	0	554	554	554	0	0	554	0	554
2020	0	803	803	803	0	0	803	0	803
2021	0	1,043	1,043	1,043	0	0	1,043	0	1,043
2022	0	1,081	1,081	1,081	0	0	1,081	0	1,081
2023	0	925	925	925	0	0	925	0	925

1/ Totals may not add due to rounding.
2/ Construction Water.
3/ Points of delivery located at metered pumps on San Diego Canal and thus the losses in the MWD system are zero.
4/ The table shows only San Diego Canal water delivered directly by MWD for agricultural irrigation in Domenigoni Basin pursuant to the Court Order. These totals do not include other water deliveries to the Domenigoni Basin landowners under MWD's obligations pursuant to the Court Order or the landowners' groundwater production.
5/ Low amount of San Diego Canal water reported is due to meter error. Flow meter was replaced October 2019. See 2016-2018 quantities for more represenative amounts.

TABLE B-6

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

PECHANGA INDIAN RESERVATION

Quantities in Acre Feet[1/]

	PRODUCTION 2/					USE 3/, 5/					
WATER YEAR	SURFACE DIVERSION	WELLS ON RESERVATION	DELIVERED GROUNDWATER FROM RCWD	RECYCLED WATER FROM EMWD	TOTAL	AG	COMM	DOM	TOTAL DELIVERED	LOSS 4/	TOTAL USE
1966											
1967											
1968											
1969											
1970											
1971											
1972											
1973											
1974											
1975											
1976											
1977											
1978											
1979											
1980											
1981											
1982											
1983											
1984											
1985											
1986											
1987											
1988											
1989											

TABLE B-6

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

PECHANGA INDIAN RESERVATION

Quantities in Acre Feet[1/]

	PRODUCTION 2/					USE 3/, 5/					
WATER YEAR	SURFACE DIVERSION	WELLS ON RESERVATION	DELIVERED GROUNDWATER FROM RCWD	RECYCLED WATER FROM EMWD	TOTAL	AG	COMM	DOM	TOTAL DELIVERED	LOSS 4/	TOTAL USE
1990											
1991	0	58	0	0	58	0	0	58	N/R	N/R	58
1992	0	66	0	0	66	0	0	66	N/R	N/R	66
1993	0	91	0	0	91	0	0	91	N/R	N/R	91
1994	0	70	0	0	70	0	0	70	N/R	N/R	70
1995	0	63	0	0	63	0	4	59	N/R	N/R	63
1996	0	145	0	0	145	0	45	100	N/R	N/R	145
1997	4	167	0	0	171	0	25	146	N/R	N/R	171
1998	4	175	0	0	179	0	62	117	N/R	N/R	179
1999	4	241	0	0	245	33	84	128	N/R	N/R	245
2000	4	370	0	0	374	51	182	141	N/R	N/R	374
2001	4	291	0	0	295	56	85	154	N/R	N/R	295
2002	4	460	0	0	464	73	194	174	441	23	464
2003	4	600	0	0	604	78	354	148	580	24	604
2004	4	721	0	0	725	81	537	71	689	36	725
2005	0	608	0	0	608	140	401	61	602	6	608
2006	0	754	0	0	754	159	401	194	N/R	N/R	754
2007	0	919	154	0	1,073	275	517	229	1,021	52	1,073
2008	0	865	412	0	1,277	599	370	282	1,251	26	1,277
2009	0	702	250	268	1,220	548	441	195	1,184	36	1,220
2010	0	561	230	394	1,185	531	364	235	1,130	55	1,185
2011	0	632	201	326	1,159	468	418	257	1,143	16	1,159
2012	0	669	177	329	1,175	513	405	215	1,133	42	1,175
2013	0	798	77	393	1,268	611	415	219	1,245	23	1,268
2014	0	765	171	442	1,378	0	1,133	162	1,295	83	1,378
2015	0	804	11	358	1,173	0	1,017	115	1,132	41	1,173
2016	0	755	0	387	1,142	0	960	101	1,061	81	1,142

TABLE B-6

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

PECHANGA INDIAN RESERVATION

Quantities in Acre Feet[1/]

	PRODUCTION 2/					USE 3/, 5/					
WATER YEAR	SURFACE DIVERSION	WELLS ON RESERVATION	DELIVERED GROUNDWATER FROM RCWD	RECYCLED WATER FROM EMWD	TOTAL	AG	COMM	DOM	TOTAL DELIVERED	LOSS 4/	TOTAL USE
2017	0	695	2	353	1,050	0	897	115	1,012	38	1,050
2018	0	772	53	481	1,306	0	1,075	173	1,248	59	1,306
2019	0	758	18	468	1,243	0	902	123	1,025	218	1,243
2020	0	564	9	473	1,047	0	780	152	932	115	1,047
2021	0	593	6	548	1,148	0	851	156	1,007	141	1,148
2022	0	598	5	584	1,187	0	943	153	1,096	91	1,187
2023	0	395	140	456	991	0	844	125	970	22	991

1/ Totals may not add due to rounding

2/ Records prior to 1991 not available.

3/ For period 1991 through 2006, use shown as reported to Watermaster and published in prior Watermaster reports.

4/ For 2007, loss assumed to be 5% for all use types; for prior years any losses shown as reported to Watermaster. For 2008 to present, loss determined as Total Production less Total Delivered.

5/ Water use definitions for all major water purveyors were updated and reconciled for WY 2014. The updated definitions are provided in Table 7.2. Based upon the revised definitions adopted by the Watermaster, Pechanga Band had no agricultural use in the SMRW beginning in WY 2014. An undetermined amount of agricultural use reported in prior years would be reported as commercial use under the revised definitions.

N/R-Not reported.

TABLE B-7

SANTA MARGARITA RIVER WATERSHED
ANNUAL WATER PRODUCTION AND USE

RAINBOW MUNICIPAL WATER DISTRICT
Quantities in Acre Feet[1/]

	PRODUCTION			USE					
WATER YEAR	LOCAL	IMPORT TO DISTRICT	TOTAL IN WATERSHED 2/	AG 3/	COMMERCIAL 4/, 5/	DOMESTIC 4/	TOTAL DELIVERED	LOSS 6/, 7/	TOTAL USE
1966	0	14,538	1,308	1,049		140	1,189	119	1,308
1967	0	12,167	1,095	878		117	995	100	1,095
1968	0	15,301	1,377	1,104		147	1,252	125	1,377
1969	0	13,917	1,253	1,005		134	1,139	114	1,252
1970	0	18,764	1,689	1,354		181	1,535	154	1,689
1971	0	18,338	1,650	1,324		177	1,500	150	1,650
1972	0	22,633	2,037	1,634		218	1,852	185	2,037
1973	0	17,955	1,616	1,296		173	1,469	147	1,616
1974	0	22,768	2,049	1,643		219	1,863	186	2,049
1975	0	13,856	1,247	1,000		133	1,134	113	1,247
1976	0	24,878	2,239	1,796		240	2,035	204	2,239
1977	0	26,038	2,343	1,879		251	2,130	213	2,343
1978	0	24,312	2,188	1,755		234	1,989	199	2,188
1979	0	26,084	2,348	1,883		251	2,134	213	2,347
1980	0	27,660	2,489	1,997		266	2,263	226	2,489
1981	0	35,036	3,153	2,529		337	2,866	287	3,153
1982	0	27,334	2,460	1,973		263	2,236	224	2,460
1983	0	24,957	2,190	1,735		256	1,991	199	2,190
1984	0	32,526	3,068	2,483		306	2,789	279	3,068
1985	0	28,612	3,410	2,798		302	3,100	310	3,410
1986	0	29,023	2,945	2,353		324	2,677	268	2,945
1987	0	29,449	3,390	2,765		317	3,082	308	3,390
1988	0	29,070	2,985	2,372		342	2,714	271	2,985
1989	0	32,034	3,003	2,385		345	2,730	273	3,003

TABLE B-7

SANTA MARGARITA RIVER WATERSHED
ANNUAL WATER PRODUCTION AND USE

RAINBOW MUNICIPAL WATER DISTRICT
Quantities in Acre Feet[1/]

	PRODUCTION			USE					
WATER YEAR	LOCAL	IMPORT TO DISTRICT	TOTAL IN WATERSHED 2/	AG 3/	COMMERCIAL 4/, 5/	DOMESTIC 4/	TOTAL DELIVERED	LOSS 6/, 7/	TOTAL USE
1990	0	34,612	3,818	3,003		468	3,471	347	3,818
1991	0	27,754	2,904	2,276		364	2,640	264	2,904
1992	0	26,056	2,277	1,877		193	2,070	207	2,277
1993	0	23,766	1,965	1,655		132	1,787	178	1,965
1994	0	22,173	1,651	1,368		133	1,501	150	1,651
1995	0	20,935	1,661	1,398		112	1,510	151	1,661
1996	0	24,835	1,815	1,487		163	1,650	165	1,815
1997	0	24,638	1,429	1,139		160	1,299	130	1,429
1998	0	19,693	1,601	1,315		141	1,456	145	1,601
1999	0	24,961	1,727	1,411		159	1,570	157	1,727
2000	0	30,446	2,217	1,861		154	2,015	202	2,217
2001	0	27,214	1,804	1,439		202	1,641	163	1,804
2002	0	32,854	1,676	1,368		156	1,524	152	1,676
2003	0	29,156	1,510	1,237		136	1,373	137	1,510
2004	0	33,686	1,888	1,567		149	1,716	172	1,888
2005	0	25,135	1,610	1,331		133	1,464	146	1,610
2006	0	29,797	1,851	1,529		154	1,683	168	1,851
2007	0	32,939	2,262	1,871		185	2,056	206	2,262
2008	0	24,390	1,790	1,461		167	1,628	162	1,790
2009	0	27,075	1,852	1,463		220	1,683	169	1,852
2010	0	20,769	1,453	1,147		174	1,321	132	1,453
2011	0	18,599	1,492	1,251		105	1,356	136	1,492
2012	0	21,152	1,892	1,602		118	1,720	172	1,892
2013	0	21,863	1,713	1,441		116	1,557	156	1,713
2014	0	22,926	1,732	1,410	0	191	1,601	131	1,732

TABLE B-7

SANTA MARGARITA RIVER WATERSHED
ANNUAL WATER PRODUCTION AND USE

RAINBOW MUNICIPAL WATER DISTRICT
Quantities in Acre Feet[1/]

		PRODUCTION			USE					
	WATER YEAR	LOCAL	IMPORT TO DISTRICT	TOTAL IN WATERSHED 2/	AG 3/	COMMERCIAL 4/, 5/	DOMESTIC 4/	TOTAL DELIVERED	LOSS 6/, 7/	TOTAL USE
	2015	0	18,358	1,333	1,111	0	168	1,279	54	1,333
R	2016	0	18,103	1,356	1,058	31	158	1,247	109	1,356
R	2017	0	16,460	1,246	966	20	154	1,140	106	1,246
R	2018	0	19,739	1,320	1,041	18	172	1,231	89	1,320
	2019	0	13,943	1,170	880	16	161	1,058	112	1,170
	2020	0	15,027	1,202	891	19	165	1,074	127	1,202
	2021	0	16,482	752	614	19	94	727	25	752
	2022	0	16,590	1,241	924	28	170	1,122	119	1,241
	2023	0	10,890	776	555	26	143	724	52	776

1/ Totals may not add due to rounding.
2/ 1966 through 1982 estimated to be 9% of total District imports.
3/ 1966 through 1982 estimated to be 80.2% of total deliveries to SMRW.
4/ For 1966 through 2013, Commercial Use and Domestic Use reported as combined Commercial/Domestic Use; Table B-7 now shows the combined amount under the Domestic Use category. For 1966 through 1982, combined Commercial/Domestic Use estimated to be 10.7% of total deliveries to SMRW.
5/ There is minimal commercial use within the SMRW portion of the District service area. Beginning in 2014, an undetermined amount of Commercial Use is now reported under Agricultural Use category.
6/ From 1989 through 2013, Loss was calculated as 10% of total deliveries.
7/ Beginning in 2014, Loss percentage within the SMRW is determined using the calculation to determine District-wide unaccounted for water by comparing District-wide annual supply and customer deliveries, and is assumed to be constant for all months.
R - Revised

TABLE B-8

SANTA MARGARITA RIVER WATERSHED
ANNUAL WATER PRODUCTION AND USE

RANCHO CALIFORNIA WATER DISTRICT
Quantities in Acre Feet[1/]

	PRODUCTION							USE 13/								VAIL LAKE		RECYCLED WATER	
YEAR	WELLS	EXPORT 2/	NET WELLS	IMPORT	EXPORT 3/	NET IMPORT	TOTAL	AG	AG/DOM 4/	COMM 5/	DOM	SMR RELEASE	IMPORT RECHARGE TO STORAGE	TOTAL USE	LOSS 6/	TOTAL	RELEASE AND RECHARGE	IRRIGATION 7/	REUSE IN SMRW	MURRIETA CREEK DISCHARGE 8/
1966				0	0	0	0						0				0	185	0	0
1967	4,288			0	0	0	4,288						0				0	1,136	0	0
1968	5,100			0	0	0	5,100						0				0	398	0	0
1969	3,617			0	0	0	3,617						0				0	697	0	0
1970	6,721			0	0	0	6,721						0				0	540	0	0
1971	7,960			0	0	0	7,960						0				0	1,541	0	0
1972	8,369			0	0	0	8,369						0				0	203	0	0
1973	7,726			0	0	0	7,726						0				0	524	0	0
1974	10,163			0	0	0	10,163						0				0	1,066	0	0
1975	10,357			0	0	0	10,357						0				0	369	0	0
1976	11,809			119	0	119	11,928						0				0	50	0	0
1977	10,522			1,845	0	1,845	12,367						0				0	0	0	0
1978	8,930			5,774	0	5,774	14,704						0				0	0	0	0
1979	11,371			7,009	0	7,009	18,380						0				0	0	0	0
1980	12,621			10,126	0	10,126	22,747						0				10,944	0	0	0
1981	15,612			15,282	0	15,282	30,894						0				6,802	0	0	0
1982	12,631			13,378	0	13,378	26,009						0				6,058	0	0	0
1983	16,675			5,752	0	5,752	22,427						0				12,113	715	0	0
1984	25,660 *9/*			6,716	0	6,716	32,376						0				6,612	1,144	0	0
1985	24,373			7,158	0	7,158	31,531						0				5,027	1,201	0	0
1986	26,997			11,174	0	11,174	38,171						0				8,722	1,053	0	0
1987	33,735			7,564	0	7,564	41,299						0				8,089	273	48	0
1988	21,367			17,854	0	17,854	39,221						0				4,844	0	82	0
1989	26,131			22,895	0	22,895	49,026	25,333		3,316	13,198	852	0	*10/* 42,699	6,327	49,026	0	0	168	0
1990	33,241			22,030	0	22,030	55,271	27,643		3,940	14,916	902	0	47,401	7,870	55,271	0	0	133	0
1991	26,503			21,238	0	21,238	47,741	32,924		2,941	10,603	785	0	*11/* 47,253	488	47,741	6,253	0	352	0
1992	29,968			16,931	0	16,931	46,899	30,651		2,406	9,672	683	0	43,412	3,487	46,899	2,244	0	374	0
1993	31,029			11,411	0	11,411	42,440	29,265		2,141	10,618	519	0	42,543	(103)	42,440	31,704	0	378	0
1994	32,725			16,386	0	16,386	49,111	32,534		2,322	12,370	467	0	47,693	1,418	49,111	8,469	0	1,936	0
1995	33,111			15,108	0	15,108	48,219	31,081		2,526	13,779	1,464	0	48,850	(631)	48,219	11,158	0	1,753	0
1996	36,086			23,600	0	23,600	59,686	35,912		2,752	16,330	2,149	0	57,143	2,543	59,686	9,427	0	2,264	0
1997	33,980			26,992	0	26,992	60,972	38,287		3,350	18,635	2,978	164	63,414	(2,442)	60,972	1,725	0	693 *12/*	0
1998	26,851			19,584	0	19,584	46,435	28,307		2,805	16,273	459	0	47,844	(1,409)	46,435	4,514	0	1,376 *12/*	1,179
1999	30,598			34,490	0	34,490	65,088	37,157		3,674	19,610	1,044	2,286	63,771	1,317	65,088	1,010	0	1,524 *12/*	1,654
2000	27,938			55,409	0	55,409	83,347	40,672	3,339	2,162	23,783	1,067	8,008	79,031	4,316	83,347	(49)	0	3,550 *12/*	1,854
2001	26,421			41,823	0	41,823	68,244	30,383	4,525	4,053	22,866	514	2,374	64,715	3,529	68,244	(361)	0	3,719 *12/*	2,015
2002	24,895			54,148	0	54,148	79,043	35,747	5,345	5,285	26,573	715	1,454	75,119	3,924	79,043	(314)	0	4,519 *12/*	2,180
2003	25,238	64	25,174	50,927	183	50,744	75,918	30,277	4,645	4,457	26,044	4,896	2,750	73,069	2,849	75,918	(658)	0	3,780 *12/*	104
2004	25,353	312	25,041	63,170	762	62,408	87,449	33,467	5,549	4,883	29,314	3,201	5,094	81,508	5,941	87,449	(101)	0	3,257 *12/*	0
2005	27,606	319	27,287	48,192	578	47,614	74,901	25,819	5,083	4,790	26,656	3,384	5,162	70,894	4,007	74,901	(1,269)	0	4,284 *12/*	0
2006	27,559	317	27,242	61,336	725	60,611	87,853	30,888	6,448	5,190	30,209	4,923	6,163	83,821	4,032	87,853	1,399	0	4,796 *12/*	0
2007	27,645	364	27,281	64,792	974	63,818	91,099	34,810	7,049	5,063	31,820	3,859	2,247	84,848	6,251	91,099	704	0	4,730 *12/*	0
2008	26,239	361	25,878	51,453	770	50,683	76,561	26,388	5,621	4,785	31,759	4,092	1,417	74,062	2,499	76,561	4,845	0	4,355 *12/*	0
2009	27,820	367	27,453	50,988	718	50,270	77,723	26,811	5,986	4,306	30,159	5,302	2,357	74,921	2,802	77,723	1,236	0	4,191 *12/*	0
2010	25,685	318	25,367	41,407	513	40,894	66,261	21,456	4,886	3,766	26,778	3,913	2,075	62,874	3,387	66,261	801	0	3,998 *12/*	0
2011	27,725	302	27,423	39,842	431	39,411	66,834	20,954	5,010	3,847	25,747	4,399	5,239	65,196	1,638	66,834	2,470	0	3,488 *12/*	0
2012	24,942	284	24,658	42,395	495	41,900	66,558	22,871	5,785	4,217	26,604	3,708	702	63,887	2,671	66,558	(5)	0	3,237 *12/*	0

TABLE B-8

SANTA MARGARITA RIVER WATERSHED
ANNUAL WATER PRODUCTION AND USE

RANCHO CALIFORNIA WATER DISTRICT
Quantities in Acre Feet[1/]

		PRODUCTION							USE 13/									VAIL LAKE		RECYCLED WATER	
	YEAR	WELLS	EXPORT 2/	NET WELLS	IMPORT	EXPORT 3/	NET IMPORT	TOTAL	AG	AG/DOM 4/	COMM 5/	DOM	SMR RELEASE	IMPORT RECHARGE TO STORAGE	TOTAL USE	LOSS 6/	TOTAL	RELEASE AND RECHARGE	IRRIGATION 7/	REUSE IN SMRW	MURRIETA CREEK DISCHARGE 8/
	2013	27,445	289	27,156	41,112	541	40,571	67,727	24,111	6,331	4,401	27,594	2,530	325	65,292	2,435	67,727	2,614	0	2,929 *12/*	0
	2014	26,412	289	26,123	47,137	534	46,603	72,726	26,154	0	10,956	28,925	4,126	(264)	69,897	2,829	72,726	85	0	3,145 *12/*	0
R	2015	24,982	251	24,731	33,922	349	33,573	58,304	21,025	0	8,742	23,910	3,432	(83)	57,026	1,278	58,304	147	0	2,994 *12/*	0
R	2016	26,025	202	25,823	35,836	358	35,478	61,301	20,859	0	7,895	21,819	4,098	3,300	57,971	3,330	61,301	4,418	0	2,953 *12/*	0
	2017	19,260	163	19,097	40,704	370	40,334	59,431	17,529	0	8,333	22,624	4,654	3,493	56,633	2,799	59,431	266	0	2,774 *12/*	0
	2018	18,828	176	18,652	44,417	440	43,977	62,629	21,547	0	9,112	24,781	3,947	(178)	59,209	3,421	62,629	(80)	0	3,257 *12/*	0
	2019	17,374	175	17,200	35,687	325	35,362	52,561	14,649	0	7,714	22,043	3,129	2,715	50,250	2,311	52,561	555	0	3,009 *12/*	0
	2020	17,077	152	16,925	42,807	360	42,447	59,372	15,572	0	7,450	23,178	4,829	3,476	54,505	4,867	59,372	379	0	2,863 *12/*	0
	2021	16,809	154	16,656	40,516	439	40,077	56,733	17,662	0	8,798	25,306	3,404	(1,999)	53,171	3,562	56,733	148	0	3,052 *12/*	0
	2022	15,019	147	14,871	40,510	437	40,074	54,945	17,354	0	8,150	23,875	3,280	(1,999)	50,660	4,285	54,945	61	0	3,282 *12/*	0
	2023	15,411	136	15,275	28,751	270	28,481	43,756	11,792	1	6,653	20,457	3,900	(1,748)	41,054	2,702	43,756	142	0	3,524 *12/*	0

1/ Totals may not add due to rounding.
2/ Groundwater used in San Mateo Watershed.
3/ Import used in San Mateo Watershed.
4/ Beginning in 2014, the Domestic and Agricultural portions of AG/DOM are reported in their respective categories of use.
5/ Beginning in 2014, Commercial use includes golf course and landscape uses, previously these uses were reported as Agricultural use.
6/ Loss = Total production less total use.
7/ Irrigation 1966 to 1976 by pumping from Vail Lake. Figures from 1966 to 1971 supplied by USGS; 1972 to present supplied by RCWD.
8/ Discharge from 2MGD Demonstration project.
9/ Includes 98 acre feet from wells out of groundwater area.
10/ Import recharge was 2,294 AF but portion remaining in storage was not computed due to lack of data.
11/ Import recharge was 701 AF but portion remaining in storage was not computed due to lack of data.
12/ Does not include EMWD recycled water production.
13/ Water Use definitions for all major water purveyors were updated and reconciled in Water Year 2013-14. The updated definitions are provided on Table 7.2.
R-Revised

TABLE B-9

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

U.S.M.C. - CAMP PENDLETON

EXCLUDING NAVAL WEAPONS STATION SHOWN ON TABLE B-10

Quantities in Acre Feet[1/]

	PRODUCTION			USE 2/						WASTEWATER 5/				
				AGRICULTURE		CAMP SUPPLY				RECYCLED USE		EXPORTED TO		
WATER YEAR	AG LOCAL	CAMP SUPPLY	TOTAL	IN SMRW 3/	OUT SMRW	IN SMRW 4/	OUT SMRW	TOTAL EXPORT	TOTAL IN SMRW	IN SMRW 6/, 7/	OUT SMRW	OCEANSIDE OUTFALL RECYCLED 8/	OUTFALL BRINE 9/	TOTAL	NET EXPORT 10/
1966	1,101	4,605	5,706	429	672	2,026	2,579	3,251	2,455	1,893				1,893	
1967	796	4,811	5,607	310	486	2,117	2,694	3,180	2,427	2,156				2,156	
1968	986	4,939	5,925	385	601	2,172	2,767	3,368	2,557	2,080				2,080	
1969	940	4,821	5,761	367	573	2,058	2,763	3,276	2,485	2,189				2,189	
1970	1,106	5,481	6,587	431	675	2,347	3,134	3,809	2,778	2,145				2,145	
1971	819	5,291	6,110	319	500	2,264	3,028	3,527	2,583	2,011				2,011	
1972	817	5,323	6,140	319	498	2,278	3,045	3,543	2,597	2,068				2,068	
1973	1,003	5,121	6,124	391	612	2,189	2,932	3,544	2,580	2,137				2,137	
1974	909	5,202	6,111	355	554	2,224	2,978	3,532	2,579	2,055				2,055	
1975	757	4,593	5,350	295	462	1,957	2,636	3,098	2,252	2,519				2,519	
1976	885	5,384	6,269	345	540	2,305	3,079	3,619	2,650	2,447				2,447	
1977	994	4,506	5,500	388	606	1,918	2,588	3,194	2,306	2,358				2,358	
1978	176	5,177	5,353	69	107	2,213	2,964	3,071	2,282	2,446				2,446	
1979	1,070	7,213	8,283	417	653	3,109	4,104	4,756	3,527	2,493				2,493	
1980	835	5,495	6,330	326	509	2,353	3,142	3,651	2,679	2,506				2,506	
1981	1,464	5,240	6,704	571	893	2,241	2,999	3,892	2,812	2,368				2,368	
1982	1,447	5,024	6,471	564	883	2,146	2,878	3,761	2,710	2,254				2,254	
1983	942	4,215	5,157	367	575	1,790	2,425	3,000	2,157	2,494				2,494	
1984	1,078	4,501	5,579	420	658	1,916	2,585	3,243	2,336	2,443				2,443	
1985	1,069	4,764	5,833	417	652	2,039	2,725	3,377	2,456	2,619				2,619	
1986	953	4,807	5,760	372	581	2,062	2,745	3,326	2,434	2,240				2,240	
1987	1,098	4,838	5,936	428	670	2,064	2,774	3,444	2,492	3,166				3,166	
1988	1,223	4,721	5,944	477	746	2,010	2,711	3,457	2,487	3,396				3,396	
1989	856	5,044	5,900	334	522	2,148	2,896	3,418	2,482	2,747				2,747	
1990	855	4,228	5,083	333	522	1,779	2,449	2,971	2,112	2,728				2,728	
1991	554	3,159	3,713	216	338	1,329	1,830	2,168	1,545	2,289	362			2,651	
1992	898	3,254	4,152	350	548	1,376	1,878	2,426	1,726	2,481	279			2,760	
1993	1,067	2,879	3,946	416	651	1,201	1,678	2,329	1,617	2,975	205			3,180	
1994	1,471	3,150	4,621	574	897	1,345	1,805	2,702	1,919	2,535	279			2,814	
1995	985	3,768	4,753	384	601	1,588	2,180	2,781	1,972	2,453	280			2,733	
1996	1,000	5,199	6,199	390	610	2,232	2,967	3,577	2,622	2,444	330			2,774	
1997	1,066	5,238	6,304	416	650	2,244	2,994	3,644	2,660	2,920	509			3,429	
1998	1,026	5,468	6,494	400	626	2,352	3,116	3,742	2,752	3,008	222			3,230	
1999	1,064	5,054	6,118	415	649	2,145	2,909	3,558	2,560	3,023	205			3,228	
2000	1,296	5,765	7,061	506	790	2,483	3,282	4,072	2,989	3,152	411			3,563	
2001	1,025	5,341	6,366	399	626	2,314	3,027	3,653	2,713	3,140	454			3,594	
2002	1,184	5,269	6,453	462	722	2,290	2,979	3,701	2,752	2,900	469			3,369	
2003	1,270	5,210	6,480	495	775	2,218	2,992	3,767	2,713	2,687	415			3,102	

TABLE B-9

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

U.S.M.C. - CAMP PENDLETON

EXCLUDING NAVAL WEAPONS STATION SHOWN ON TABLE B-10

Quantities in Acre Feet[1/]

	PRODUCTION			USE 2/						WASTEWATER 5/					
				AGRICULTURE		CAMP SUPPLY				RECYCLED USE		EXPORTED TO			
WATER YEAR	AG LOCAL	CAMP SUPPLY	TOTAL	IN SMRW 3/	OUT SMRW	IN SMRW	OUT SMRW 4/	TOTAL EXPORT	TOTAL IN SMRW	IN SMRW 6/, 7/	OUT SMRW	OCEANSIDE OUTFALL RECYCLED 8/	OUTFALL BRINE 9/	TOTAL	NET EXPORT 10/
2004	1,227	5,538	6,765	479	748	2,396	3,142	3,890	2,875	0	444	2,544		2,988	
2005	1,317	4,902	6,219	514	803	2,134	2,768	3,571	2,648	0	489	2,526		3,015	
2006	1,530	5,311	6,841	597	933	2,301	3,010	3,943	2,898	0	449	2,298		2,747	
2007	1,385	5,850	7,235	540	845	2,535	3,315	4,160	3,075	0	416	2,309		2,725	
2008	1,606	5,315	6,921	579	1,027	2,603	2,712	3,739	3,182	0	357	2,430		2,787	
2009	882	5,516	6,398	273	609	2,593	2,923	3,532	2,866	49	488	1,966		2,503	4,243
2010	645	5,137	5,782	202	443	2,672	2,465	2,908	2,874	6	396	1,839		2,241	4,068
2011	76	5,165	5,241	24	52	2,583	2,582	2,634	2,607	0	320	2,562		2,882	4,075
2012	0	4,676	4,676	0	0	1,869	2,807	2,807	1,869	0	393	2,395		2,788	3,923
2013	0	5,744	5,744	0	0	2,690	2,690	2,690	2,690	0	403	1,956	364	2,723	4,233
2014	0	5,814	5,814	0	0	2,523	2,733	2,733	2,523	29	484	1,600	558	2,671	4,276
2015	0	4,690	4,690	0	0	1,816	2,311	2,311	1,816	49	401	1,562	563	2,575	3,710
2016	0	4,228	4,228	0	0	1,789	2,277	2,277	1,789	41	423	1,640	161	2,266	3,324
2017	0	4,874	4,874	0	0	2,219	2,502	2,502	2,219	29	347	1,915	153	2,444	3,704
2018	0	5,834	5,834	0	0	2,535	2,747	2,747	2,535	31	391	1,828	551	2,801	4,347
2019	0	5,614	5,614	0	0	2,087	2,883	2,883	2,087	18	289	1,974	644	2,925	4,467
2020	0	5,849	5,849	0	0	2,728	2,468	2,468	2,728	18	320	2,388	653	3,379	4,534
2021	0	6,395	6,395	0	0	2,897	2,826	2,826	2,897	33	270	2,400	672	3,374	4,833
2022	0	5,971	5,971	0	0	2,769	2,596	2,596	2,769	29	351	2,354	606	3,340	4,584
2023	0	6,482	6,482	0	0	2,384	3,291	3,291	2,384	27	21	2,290	807	3,145	4,828

1/ Totals may not add due to rounding.
2/ Use equals Production less Brine byproduct from Southern Advanced Water Treatment Plant (SAWTP) beginning February 2013. Assumes no other losses.
3/ For years 1966 through 2007, agricultural water use is divided with 39% used inside SMRW and 61% used outside SMRW, thereafter proportions provided by Camp Pendleton.
4/ Prior to 1969, 44% used inside the SMRW and 56% used outside the SMRW. For years 1969 through 2007, Camp Supply water use inside SMRW equals 44% of sum of Camp Supply production plus Naval Weapons Station (NWS) Import, less the NWS Import. Annual proportions provided by Camp Pendleton beginning 2008.
5/ All southern wastewater treated at Southern Regional Tertiary Treatment Plant (SRTTP) beginning December 2008.
6/ For years 1966 through 2003, recycled use inside SMRW reported as recharged wastewater from ponds and recharge areas. See prior reports from 2008 and earlier for additional information.
7/ Recycled use for irrigation of golf course, landscaping and park areas.
8/ Recycled water not used but rather exported to Oceanside Outfall.
9/ Brine from SAWTP exported to Oceanside Outfall.
10/ Net Export equals the sum of Agriculture Out, Camp Supply Out, Recycled Out and Export to Oceanside Outfall, minus Wastewater Return, as shown on Table A-8.
11/ Includes production from SWFL Seep Wells #1, #2, and #3. Does not include CUP water delivered to FPUD (beginning WY 2021).

TABLE B-10

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

U. S. NAVAL WEAPONS STATION, FALLBROOK ANNEX

Quantities in Acre Feet[1/]

	PRODUCTION			USE				WASTEWATER
WATER YEAR	LOCAL	IMPORT TO WATERSHED 2/	TOTAL	AG	COMM/ DOM	LOSS 3/	TOTAL USE	EXPORTED
1966	87	0	87	0	79	9	87	0
1967	92	0	92	0	83	9	92	0
1968	108	0	108	0	97	11	108	0
1969	138	0	138	0	113	25	138	0
1970	152	0	152	0	125	27	152	0
1971	39	76	115	0	100	15	115	0
1972	0	115	115	0	105	10	115	0
1973	0	115	115	0	105	10	115	0
1974	0	115	115	0	105	10	115	0
1975	0	115	115	0	105	10	115	0
1976	0	115	115	0	105	10	115	0
1977	0	115	115	0	105	10	115	0
1978	0	115	115	0	105	10	115	0
1979	0	115	115	0	105	10	115	0
1980	0	115	115	0	105	10	115	0
1981	0	115	115	0	105	10	115	0
1982	0	115	115	0	105	10	115	0
1983	0	115	115	0	105	10	115	26
1984	0	115	115	0	105	10	115	26
1985	0	102	102	0	93	9	102	26

TABLE B-10

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

U. S. NAVAL WEAPONS STATION, FALLBROOK ANNEX

Quantities in Acre Feet[1/]

	PRODUCTION			USE				WASTEWATER
WATER YEAR	LOCAL	IMPORT TO WATERSHED 2/	TOTAL	AG	COMM/ DOM	LOSS 3/	TOTAL USE	EXPORTED
1986	0	94	94	0	85	9	94	18
1987	0	116	116	0	105	11	116	27
1988	0	120	120	0	109	11	120	25
1989	0	128	128	0	116	12	128	22
1990	0	145	145	0	132	13	145	27
1991	0	109	109	0	99	10	109	11
1992	0	99	99	0	90	9	99	7
1993	0	117	117	0	106	11	117	16
1994	0	73	73	0	66	7	73	5
1995	0	125	125	0	114	11	125	12
1996	0	100	100	0	91	9	100	5
1997	0	109	109	0	99	10	109	6
1998	0	97	97	0	88	9	97	8
1999	0	111	111	0	101	10	111	5
2000	0	104	104	0	95	9	104	7
2001	0	73	73	0	66	7	73	8
2002	0	97	97	0	88	9	97	9
2003	0	88	88	0	80	8	88	10
2004	0	73	73	0	66	7	73	8
2005	0	40	40	0	36	4	40	16

TABLE B-10

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

U. S. NAVAL WEAPONS STATION, FALLBROOK ANNEX

Quantities in Acre Feet[1/]

	PRODUCTION			USE				WASTEWATER
WATER YEAR	LOCAL	IMPORT TO WATERSHED 2/	TOTAL	AG	COMM/ DOM	LOSS 3/	TOTAL USE	EXPORTED
2006	0	64	64	0	58	6	64	8
2007	0	70	70	0	64	6	70	12
2008	0	82	82	0	75	7	82	11
2009	0	74	74	0	67	7	74	12
2010	0	69	69	0	63	6	69	7
2011	0	45	45	0	41	4	45	8
2012	0	48	48	0	44	4	48	9
2013	0	47	47	0	43	4	47	3
2014	0	58	58	0	53	5	58	6
2015	0	44	44	0	40	4	44	3
2016	0	62	62	0	57	6	62	1
2017	0	67	67	0	61	6	67	1
2018	0	65	65	0	59	6	65	0
2019	0	85	85	0	78	8	85	1
2020	0	46	46	0	42	4	46	0
2021	0	44	44	0	40	4	44	0
2022	0	67	67	0	60	7	67	1
2023	0	35	35	0	31	3	35	1

1/ Totals may not add due to rounding.

2/ Estimate 1969 through 1984 - Records not available.

3/ Loss = 10% of Use.

TABLE B-11

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

WESTERN MUNICIPAL WATER DISTRICT
MURRIETA DIVISION

Quantities in Acre Feet[1/]

	PRODUCTION				USE 2/					
WATER YEAR	WELLS	IMPORT	TOTAL		AG	COMM	DOM	TOTAL DELIVERED	LOSS 3/	TOTAL USE
1966	41	0	41		0	0	37	37	4	41
1967	45	0	45		0	0	41	41	4	45
1968	54	0	54		0	0	49	49	5	54
1969	54	0	54		0	0	49	49	5	54
1970	73	0	73		0	0	66	66	7	73
1971	83	0	83		3	0	72	75	8	83
1972	111	0	111		10	0	91	101	10	111
1973	92	0	92		11	0	72	84	8	92
1974	132	0	132		14	0	107	120	12	132
1975	153	0	153		18	0	121	139	14	153
1976	117	0	117		22	0	84	106	11	117
1977	170	0	170		21	0	134	155	15	170
1978	169	0	169		19	0	135	154	15	169

TABLE B-11

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

WESTERN MUNICIPAL WATER DISTRICT
MURRIETA DIVISION

Quantities in Acre Feet[1/]

	PRODUCTION				USE 2/					
WATER YEAR	WELLS	IMPORT	TOTAL		AG	COMM	DOM	TOTAL DELIVERED	LOSS 3/	TOTAL USE
1979	197	0	197		19	0	160	179	18	197
1980	218	0	218		20	0	178	198	20	218
1981	265	0	265		30	0	211	241	24	265
1982	230	0	230		21	0	188	209	21	230
1983	216	0	216		14	0	182	196	20	216
1984	304	0	304		26	0	250	276	28	304
1985	308	0	308		19	0	261	280	28	308
1986	305	0	305		22	0	255	277	28	305
1987	326	0	326		23	0	273	296	30	326
1988	303	0	303		13	35	262	275	28	303
1989	286	0	286		11	72	262	344	(4)	286
1990	465	0	465		13	76	266	355	110	465
1991	459	0	459		15	88	250	353	106	459
1992	492	0	492		6	122	302	430	62	492
1993	508	0	508		4	105	323	432	76	508
1994	512	0	512		10	103	324	437	75	512
1995	521	0	521		12	99	321	432	89	521
1996	629	0	629		88	113	384	585	44	629
1997	638	0	638		76	99	392	567	71	638

TABLE B-11

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

WESTERN MUNICIPAL WATER DISTRICT

MURRIETA DIVISION

Quantities in Acre Feet[1/]

	PRODUCTION				USE 2/					
WATER YEAR	WELLS	IMPORT	TOTAL		AG	COMM	DOM	TOTAL DELIVERED	LOSS 3/	TOTAL USE
1998	603	0	603		79	90	362	531	72	603
1999	827	0	827		79	125	548	752	75	827
2000	1,123	0	1,123		199	365	519	1,083	40	1,123
2001	1,389	0	1,389		163	414	740	1,317	72	1,389
2002	1,679	0	1,679		230	348	1,115	1,693	(14)	1,679
2003	1,748	102	1,850		272	275	1,340	1,887	(37)	1,850
2004	1,979	330	2,309		282	407	1,479	2,168	141	2,309
2005	2,098	75	2,173		262	274	1,539	2,075	98	2,173
2006	2,233	316	2,549		338	396	1,696	2,430	119	2,549
2007	1,978	723	2,701		467	276	1,980	2,723	(22)	2,701
2008	210	2,180	2,390		408	251	1,827	2,486	(96)	2,390
2009	861	1,654	2,515		396	219	1,723	2,338	177	2,515
2010	753	1,462	2,215		264	140	1,642	2,046	169	2,215
2011	559	1,642	2,201		324	239	1,497	2,060	141	2,201
2012	750	1,371	2,121		250	340	1,418	2,008	113	2,121
2013	1,014	1,365	2,379		431	166	1,653	2,250	129	2,379
2014	951	1,407	2,358		0	657	1,640	2,297	61	2,358
2015	1,041	820	1,861		0	546	1,274	1,820	41	1,861
2016	642	1,290	1,932		0	723	1,168	1,891	41	1,932
2017	362	1,711	2,073		0	800	1,182	1,982	91	2,073

TABLE B-11

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATER PRODUCTION AND USE

WESTERN MUNICIPAL WATER DISTRICT
MURRIETA DIVISION

Quantities in Acre Feet[1/]

	PRODUCTION				USE 2/					
WATER YEAR	WELLS	IMPORT	TOTAL		AG	COMM	DOM	TOTAL DELIVERED	LOSS 3/	TOTAL USE
2018	414	1,820	2,234		0	929	1,293	2,222	12	2,234
2019	365	1,529	1,895		0	622	1,264	1,887	8	1,895
2020	399	1,753	2,152		0	651	1,414	2,065	87	2,152
2021	998	1,385	2,383		0	702	1,498	2,200	183	2,383
2022	224	2,104	2,328		0	726	1,478	2,204	124	2,328
2023	567	1,452	2,019		0	547	1,247	1,794	225	2,019

1/ Totals may not add due to rounding.

2/ Water use definitions for all major water purveyors were updated and reconciled for WY 2014. The updated definitions are provided in Table 7.2. Based upon the revised definitions adopted by the Watermaster, WMWD had nc agricultural use in the SMRW during WY 2015. An undetermined amount of agricultural use reported in prior years would be reported as commercial use under the revised definitions.

3/ Loss = Total Production less Total Delivered

TABLE B-12

SANTA MARGARITA RIVER WATERSHED

MISCELLANEOUS WATER PRODUCTION AND IMPORTS

Quantities in Acre Feet

	IMPORT	PRODUCTION							
WATER YEAR	WESTERN MWD IMPORTS TO IMPROVEMENT DISTIRCT A	ANZA MUTUAL WATER COMPANY	OUTDOOR RESORTS RANCHO CALIFORNIA	QUIET OAKS MOBILE HOME PARK	LAKE RIVERSIDE ESTATES	HAWTHORN WATER SYSTEM 1/	JOJOBA HILLS SKP RESORT	COTTONWOOD ELEMENTARY	HAMILTON SCHOOLS
1966	23.50								
1967	20.40								
1968	27.00								
1969	24.60								
1970	30.60								
1971	34.40								
1972	34.10								
1973	30.20								
1974	36.40								
1975	34.20								
1976	35.00								
1977	24.20								
1978	26.00								
1979	24.00								
1980	24.70								
1981	34.30								
1982	34.20								
1983	26.00								
1984	26.00								
1985	27.00								
1986	34.40								
1987	35.50								
1988	35.70								
1989	22.80	33.00	42.00	23.50	249.52				
1990	21.90	37.00	50.69	23.50	247.42				
1991	20.70	35.06	50.59	12.21	339.77				
1992	24.60	31.21	42.86	12.24	279.04				

TABLE B-12

SANTA MARGARITA RIVER WATERSHED

MISCELLANEOUS WATER PRODUCTION AND IMPORTS

Quantities in Acre Feet

	IMPORT	PRODUCTION							
WATER YEAR	WESTERN MWD IMPORTS TO IMPROVEMENT DISTIRCT A	ANZA MUTUAL WATER COMPANY	OUTDOOR RESORTS RANCHO CALIFORNIA	QUIET OAKS MOBILE HOME PARK	LAKE RIVERSIDE ESTATES	HAWTHORN WATER SYSTEM 1/	JOJOBA HILLS SKP RESORT	COTTONWOOD ELEMENTARY	HAMILTON SCHOOLS
1993	31.40	32.16	42.44	12.20	192.09				
1994	36.60	37.32	38.04	23.82	262.69				
1995	29.10	45.69	69.54	22.60	130.06				
1996	35.10	45.53	58.59	21.96	219.73				
1997	30.40	43.87	83.42	30.25	233.56				
1998	31.00	39.54	87.42	24.41	134.96				
1999	40.70	33.30	70.74	25.70	209.55				
2000	41.90	44.67	90.10	24.58	316.57		53.28		
2001	58.70	45.00	208.64	23.21	274.25		74.87		
2002	64.40	41.10	216.13	24.43	323.65	82.87	91.83		
2003	42.40	44.04	201.63	34.56	255.93	81.61	74.70		
2004	50.30	40.44	216.77	32.20	350.80	94.19	74.89		
2005	62.20	38.26	187.06	18.09	208.08	55.87	66.95		
2006	65.80	51.36	198.92	27.30	268.60	40.25	64.68		
2007	45.30	39.33	480.70	19.80	421.56	37.22	66.98		
2008	53.90	34.13	483.69	23.30	334.31	21.56	65.50		
2009	50.90	34.13	492.26	23.30	347.51	25.36	67.86		18.68
2010	62.30	36.97	510.42	23.30	255.19	24.01	55.39		N/R
2011	52.10	27.17	494.40	23.30	270.44	19.27	56.97		N/R
2012	48.50	26.22	506.40	23.30	310.31	26.37	69.12		N/R
2013	34.84	28.30	655.20	34.30	341.29	16.76	76.77		15.09
2014	35.40	29.28	560.30	27.30	378.96	8.91	75.17		15.60
2015	29.20	24.80	454.55	23.20	368.06	6.40	71.89	14.17	10.86
2016	42.38	23.69	312.90	17.70	379.04	6.40	69.08	14.27	12.04
2017	30.30	22.36	517.18	17.70	410.17	6.40	60.83	11.04	14.20
2018	29.22	28.77	337.72	16.10	434.76	N/A	69.42	16.36	15.70
2019	30.40	28.48	234.89	16.10	320.76	N/A	67.28	16.44	14.33

TABLE B-12

SANTA MARGARITA RIVER WATERSHED

MISCELLANEOUS WATER PRODUCTION AND IMPORTS

Quantities in Acre Feet

	IMPORT	PRODUCTION							
WATER YEAR	WESTERN MWD IMPORTS TO IMPROVEMENT DISTIRCT A	ANZA MUTUAL WATER COMPANY	OUTDOOR RESORTS RANCHO CALIFORNIA	QUIET OAKS MOBILE HOME PARK	LAKE RIVERSIDE ESTATES	HAWTHORN WATER SYSTEM 1/	JOJOBA HILLS SKP RESORT	COTTONWOOD ELEMENTARY	HAMILTON SCHOOLS
2020	45.20	27.67	254.96	16.10	415.59	N/A	70.84	16.02	16.99
2021	37.70	34.61	239.42	16.10	392.94	N/A	64.50	23.01	14.28
2022	30.31	48.42	153.32	16.10	381.83	N/A	59.62	16.20	18.64
2023	25.34	37.63	185.21	16.10	289.44	N/A	42.98	9.56	7.93

1/ Requirements for reporting to the Watermaster removed as of WY 2018.
N/R -- Not reported.

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SANTA MARGARITA RIVER WATERSHED

ANNUAL WATERMASTER REPORT

WATER YEAR 2022-23

APPENDIX C

SUBSTANTIAL USERS OUTSIDE

ORGANIZED WATER SERVICE AREAS

JULY 2025

APPENDIX C

SANTA MARGARITA RIVER WATERSHED

SUBSTANTIAL USERS OUTSIDE ORGANIZED WATER SERVICE AREAS

CURRENT OWNER	ADDRESS	ASSESSOR PARCEL NO.	PARCEL ACREAGE	ACRES IRRIGATED 2022-23	IRRIGATED CROP 2022-23	WELL/ DIVERSION LOCATION TWP/RNG/SEC	WELL PRODUCTION AC. FT	SURFACE DIVERSION AC. FT
AGUANGA GROUNDWATER AREA								
Vail Custodial Services	43425 Sage Road	581-070-011	85.99					
(Sundance Meadows)	44175 Sage Road	581-070-013*	43.10					
	Aguanga, CA 92536	581-070-016*	157.21			8S/1E-7N(1)		
						8S/1E-7N(2)		
						8S/1E-7Q(1)		
						8S/1E-7Q(2)		
		581-150-013*	120.56					
		581-150-014	79.82					
		581-150-015*	1.10					
		581-150-016*	25.37					
		917-050-003*	79.14					
		917-050-007*	82.19					
* Parcels leased from RCWD		917-050-009	309.74	20.00	Lawn	8S/1W-12(1)	40.00	
Val Verde Partners	43023 Hwy 79	583-040-021	13.45					
	Aguanga, CA 92536	583-040-022	93.78	2.00	Pasture	8S/1E-19Q(1)		
						8S/1E-19Q(2)	2.00	
						8S/1E-19Q(3)		
		583-060-003	41.60					
		583-120-092	160.00					
		583-130-055	40.00					
						8S/1E-29L - Diversion		0.00
Zen-Kamata, LLC	42551 Hwy 79	583-020-006	9.54	Total				
	Aguanga, CA 92536	583-020-010	9.00	||			
	m/t 2635 N. First St., Ste. 213	583-030-005	3.72	||			
	San Jose, CA 95134	583-040-002	1.04	||			
		583-040-024	23.48	||			
		583-040-025	23.12	Of				
		583-040-026	23.16	||			
		583-040-027	22.64	||			
		583-040-028	25.52	||			
		583-040-029	19.89	0.00	None	8S/1E-19K	0.00	
						8S/1E-19G4	0.00	
						8S/1E-29L - Diversion		0.00
* Lee, Chong Suk and	43900 Highway 79	583-130-029	10.09	8.09	Deciduous Fruits	8S/1E-29	15.51	
Juyeon P.	Aguanga, CA 92536	583-130-030	11.64	8.52				
	m/t 7720 Stenton Ave Ste. 310							
	Philadephia, PA 19118							
* Estimated by Watermaster Office								
* Kim, Sung Doo	44620 Highway 79	583-120-011	155.50	Total	Misc.	8S/1E-28**	104.85	
	Aguanga, CA 92536	583-120-015	40.00	||				
	m/t 30545 Estero Street	583-120-016	19.12	||				
	Temecula, CA 92592	583-260-032	5.21	of				
		583-260-033	5.03	||				
		583-260-034	5.63	||				
		583-260-035	7.71	73.88				
* Estimated by Watermaster Office								
** Well(s) not located								
Aguanga	44375 Hwy 79	583-120-083	68.09	Total		8S/1E-28N1	Total	
Properties, LLC	Aguanga, CA 92536			||		8S/1E-28N2	||	
(Twin Creek Ranch)	m/t P.O Box 892378	583-120-090*	132.82	||		8S/1E-29H	||	
	Temecula, CA 92589	583-120-091	39.57	of			||	
				||			of	
		583-140-014	48.03	||		8S/1E-33F	||	
		583-140-015	40.00	||		8S/1E-33G1	||	
		583-140-016	40.00	||		8S/1E-33B	0.00	
		583-140-018	10.09	||				
		583-140-019	10.12	||				
		583-140-020**	10.15	||				
* Parcel owned by Mr. James Holden, et al.		583-150-001	80.00	0.00				
** Parcel owned by Aguanga S Farms, Inc.								

Well No. in parentheses designated by Watermaster.

1/ Water Use Report Form not received for water year, indicated value for irrigated acreage, production, and surface diversion assumed to be the same as last year reported.

SANTA MARGARITA RIVER WATERSHED

SUBSTANTIAL USERS OUTSIDE ORGANIZED WATER SERVICE AREAS

CURRENT OWNER	ADDRESS	ASSESSOR PARCEL NO.	PARCEL ACREAGE	ACRES IRRIGATED 2022-23	IRRIGATED CROP 2022-23	WELL/ DIVERSION LOCATION TWP/RNG/SEC	WELL PRODUCTION AC. FT	SURFACE DIVERSION AC. FT
AGUANGA GROUNDWATER AREA (Cont.)								
Twin Legacy, LLC	41750 Highway 79	917-050-006	233.57	80.00	Row Crops	8S/1W-13Q(1)	Total of	
Yanik, Robert	Aguanga, CA 92536					8S/1W-13Q(2)	815.00	
		917-170-003	80.81	40.00	Row/Nursery			
		917-290-001	126.26	40.00	Row/Nursery			
		917-290-002	82.25	16.00	Row Crops			
* Leslie K. Harris	m/t 44700 Sage Rd-H	581-150-009	7.00	10.00	Fruit			
	Aguanga, CA 92536	581-160-015	7.42	6.00	Fruit			
		581-160-022	13.85					
		581-160-025	18.10	17.00	Citrus/Grass	8S/1E-18J(1)		
						8S/1E-18J(2)		
		581-170-009**	7.82	7.82	Grass/Slope	8S/1E-18H(1)		
						8S/1E-18H(2)		
		581-180-004	20.00					
		581-180-017	19.19					
		581-180-020	20.00			8S/1E-17M	25.00	
		581-180-021	2.15			8S/1E-17E	35.00	
		581-180-022	30.00					
Wilson Creek Farms	44200 Sage Road	581-070-002	160.00					
And	Aguanga, CA 92536	581-070-005	640.00			8S/1E-9Q - Diversion		320.00
Wilson Creek Land Co., Inc.	m/t P. O. Box 347	581-100-013	80.00			8S/1E-10		
	Aguanga, CA 92536	581-100-019	30.00					
		581-100-020	10.00					
		581-100-021	20.00					
		581-100-022	20.00					
		581-100-038	9.53					
		581-100-039	9.23					
		581-100-040	8.91					
		581-150-012	0.40					
		581-170-013	99.63	80.00	Hay/Grass	8S/1E-17H	15.00	
		581-170-016	190.40	80.00	Veg./Hay	8S/1E-17B	425.00	
						8S/1E-17B(2)	1.50	
		581-180-005	2.76					
		581-180-009	120.00	60.00	Hay			
		581-190-013	280.00	50.00	Veg			
		581-190-014	40.00	25.00	Veg			
* Point X LP	38901 Reed Valley Road	571-110-001	2.99					
Oak Springs Resort	Aguanga, CA 92536	571-110-002	2.75					
		571-110-003	3.21					
		571-280-037	30.70					
		571-280-039	51.10	2.53	Pond/Reservoir	7S/1E-13P	8.11	
Wild Horse Peak	Highway 79 South	917-250-004	80.00			8S/1W-25Q(1)		
Mountain Vineyard	Temecula, CA	917-250-005	80.00			8S/1W-25P(1)	15.00	
Attn: Mr. James Carter	m/t 3719 South Plaza Drive					8S/1W-25N(1) - Spring 3		
	Santa Ana, CA 92704	917-250-007	240.00	220.00	Vineyard	8S/1W-36K - Spring 4		
						8S/1W-36H - Spring 6		45.00
						8S/1W-36K(1)	15.00	
						8S/1W-36K(2)	15.00	
						8S/1W-36K(3)	55.00	
						8S/1W-36L - Stream Diversion		

* Estimated by Watermaster Office
** Parcel owned by Valley Wide Recreation & Parks District.

** Plus riparian restoration.

* Estimated by Watermaster Office

Well No. in parentheses designated by Watermaster.
1/ Water Use Report Form not received for water year, indicated value for irrigated acreage, production, and surface diversion assumed to be the same as last year reported.

APPENDIX C

SANTA MARGARITA RIVER WATERSHED

SUBSTANTIAL USERS OUTSIDE ORGANIZED WATER SERVICE AREAS

	CURRENT OWNER	ADDRESS	ASSESSOR PARCEL NO.	PARCEL ACREAGE	ACRES IRRIGATED 2022-23	IRRIGATED CROP 2022-23	WELL/ DIVERSION LOCATION TWP/RNG/SEC	WELL PRODUCTION AC. FT	SURFACE DIVERSION AC. FT
AGUANGA GROUNDWATER AREA (Cont.)									
	Kim, Misun	Skiploader Road Aguanga, CA m/t P.O. Box 725 Aguanga, CA 92536	583-190-018	40.00	10.00	Misc.	8S/1E-34Q	0.00	
1/	Zhang, Aiguo	m/t P.O. Box 893664 Temecula, CA 92591	581-120-006	200.00	0.00	None	8S/1E-8K2	0.00	
	TOTAL AGUANGA GROUNDWATER AREA				**856.84**			**1,586.97**	**365.00**
TEMECULA CREEK ABOVE AGUANGA GROUNDWATER AREA									
*	Agri-Empire, Inc.	m/t P. O. Box 490 San Jacinto, CA 92383							
	CHIHUAHUA VALLEY		113-090-01**	377.07					
			113-090-03**	21.46					
			113-090-04**	43.96					
			113-090-05**	541.26					
			113-100-01**	389.81			9S/2E-11B - Diversion		
			113-130-01**	150.09			9S/2E-17D - Spring		
			113-140-03***	196.54	0.00	various	9S/2E-16N2	0.00	
			113-140-04**	503.24			9S/2E-16M	0.00	
			113-140-05**	45.09			9S/2E-16F1	0.00	
			113-140-06**	93.44			9S/2E-16N1	0.00	
							9S/2E-16F2		
							9S/2E-16K - Diversion		
	DODGE VALLEY		114-020-09***	37.16					
			114-020-10**	20.30					
			114-030-07***	93.38					
			114-030-33**	194.29			9S/2E-22		
			114-030-34	137.50					
			114-030-35**	13.32					
			114-030-36	29.55					
	Hill Springs Farm, LLC	38642 Highway 79 Warner Springs, CA 92086 m/t P.O. Box 1946 Duarte, CA 91009	112-030-38	40.00	Total		9S/1E-12A		
			112-030-40	161.46	||				
			112-030-42	40.00	||				
			112-030-43	40.00	||				
			112-030-67	67.41	||				
			112-030-68	52.59	Of				
			112-030-72	129.90	||				
			112-030-73	62.20	||		9S/1E-1M - Diversion		
			112-030-74	70.50	||		9S/1E-1Q(1)		
					||		9S/1E-1Q(2)	82.00	
			113-060-12	63.21	65.00	Vineyard	9S/2E-7D	35.00	
							9S/2E-7E - Diversion		
*	Bergman, Arlie and Coral	Highway 79 Warner Springs, CA 92086 m/t 37126 Highway 79 Warner Springs, CA 92086	113-130-03	115.75	0.00	n/a			
			113-130-04	39.65	0.00	n/a			
			114-030-10	41.51	0.00	n/a			
			113-140-01	358.62	0.00	n/a	9S/2E-16B(1)	0.00	
							9S/2E-16B(2)	0.00	
							9S/2E-16G	0.00	
			113-140-02	38.75	0.00	n/a			
			114-020-12	108.78	0.00	n/a			

* Estimated by Watermaster Office
** Land leased from the State of California
*** Parcel owned by LWM Properties LLC

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APPENDIX C

SANTA MARGARITA RIVER WATERSHED

SUBSTANTIAL USERS OUTSIDE ORGANIZED WATER SERVICE AREAS

CURRENT OWNER	ADDRESS	ASSESSOR PARCEL NO.	PARCEL ACREAGE	ACRES IRRIGATED 2022-23	IRRIGATED CROP 2022-23	WELL/ DIVERSION LOCATION TWP/RNG/SEC	WELL PRODUCTION AC. FT	SURFACE DIVERSION AC. FT
TEMECULA CREEK ABOVE AGUANGA GROUNDWATER AREA (Cont.)								
Lovingier Family Trust	35490 Highway 79	114-070-07	76.42	Total		9S/2E-27R1	Total	
	Warner Springs, CA 92086			||		9S/2E-27R2	||	
	m/t P.O. Box 91655			||		9S/2E-27J	||	
	Long Beach, CA 90809	114-070-27	19.15	||			||	
		114-070-28	19.15	||			||	
		114-070-34	167.94	Of			Of	
		114-080-13	21.30	||			||	
		114-080-14	42.51	||			||	
		114-120-24	20.66	||			||	
		114-120-42	78.41	170.00	Pasture	9S/2E-35D1	||	
						9S/2E-35D2	648.81	
* Tiso Family Trust c/o La Serenissima Vineyards and Winery	35168 Highway 79 Warner Springs, CA 92086	114-120-48	20.30	13.00	Vineyard	9S/2E-35L(1)	15.43	
TOTAL TEMECULA CREEK ABOVE AGUANGA GROUNDWATER AREA				**248.00**			**781.24**	**0.00**
WILSON CREEK ABOVE AGUANGA GROUNDWATER AREA ANZA VALLEY								
Greenwald, Thomas R.	55255 Mitchell Road Anza. CA 92539 m/t 640 S San Vicente Blvd, #475 Los Angeles, CA 90048	573-180-001	156.38	0.00	None	7S/3E-17E	0.00	
Miller, Frank C. Grabowski-Miller, Jan	55520 Hwy 371 Anza, CA 92539 m/t 702 Sundance Drive Verona, WI 53593	573-200-007 573-200-008 573-200-009	18.88 18.31 36.40	11.00 12.00 26.00	Row Grapes/Row Row	7S/3E-17(1) 7S/3E-17(M) 7S/3E-17(N) 7S/3E-17(P)	14.00 55.00	
Anza Development Corp	m/t 1907 James Gaynor St Fallbrook, CA 92028	573-200-004 573-200-005 573-200-006 573-200-010	18.24 18.50 18.89 18.68	Total || Of 0.00	None	Irrigated from wells on parcel 573-200-009, when applicable	Total || Of 0.00	
* Agri-Empire, Inc.	P.O. Box 490 San Jacinto, CA 92383							
	Section 10	575-050-044	14.36	Total				
	Section 11	575-060-002	133.72			7S/3E-11N4	0.00	
				||		7S/3E-11P3	0.00	
	Section 13	575-100-009	19.94	||				
		575-100-032	89.02	||				
		575-100-033	89.08	||				
		575-100-034	37.63	||				
		575-100-035	157.20	||				
		575-100-036	27.91	||				
		575-100-037	57.80	||				
		575-100-039	7.91	||				
		575-100-040	0.88	||				
		575-100-041	19.93	||				
		575-100-042	0.60					
	Section 14	575-110-027	54.45	||				
		575-110-030	74.86	||				
		575-110-033	123.75	||		7S/3E-14D1		
		575-310-002	39.09	||		7S/3E-14C2		
		575-310-011	80.00	||				
		575-310-012	80.00	||				
		575-310-013	17.46	||				
		575-310-014	0.75	||				
		575-310-027	17.46	||				
* Estimated by Watermaster Office		575-310-028	0.92	||				

Well No. in parentheses designated by Watermaster.

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SANTA MARGARITA RIVER WATERSHED

SUBSTANTIAL USERS OUTSIDE ORGANIZED WATER SERVICE AREAS

CURRENT OWNER	ADDRESS	ASSESSOR PARCEL NO.	PARCEL ACREAGE	ACRES IRRIGATED 2022-23	IRRIGATED CROP 2022-23	WELL/ DIVERSION LOCATION TWP/RNG/SEC	WELL PRODUCTION AC. FT	SURFACE DIVERSION AC. FT
WILSON CREEK ABOVE AGUANGA GROUNDWATER AREA								
ANZA VALLEY (Cont.)								
* Agri-Empire, Inc. (Cont)	Section 15	575-080-010	4.77	||				
		575-080-014	9.92	||				
		575-080-015	4.35	||				
		575-080-017	9.75	||				
		575-080-018	10.13	||				
		575-080-019	31.29	Of				
		575-080-021	20.00	||				
		575-080-022	20.00	||				
		575-080-024	20.00	||				
		575-080-027	20.00	||				
		575-090-010	38.80	||				
	Section 17	573-180-011	39.74					
	Section 20	576-060-009	8.26	||				
		576-060-031	16.09					
		576-060-033	79.45	||				
		576-060-038	5.62	||				
		576-070-003	80.00	||				
		576-070-005	116.57	||				
				||				
	Section 21	576-100-061	37.71	||				
		576-110-001	160.00			7S/3E-21P(1)	0.00	
				||		7S/3E-21P(2)	0.00	
		576-110-002	28.00	||				
		576-110-003	2.00					
		576-110-004	50.00	||				
		576-110-006	19.29	||				
		576-110-007	17.82	||				
		576-110-008	17.00	||		7S/3E-21R(3)	0.00	
				||		7S/3E-21R(4)	0.00	
		576-110-009	18.41	||				
	Section 22	575-130-003	19.55					
		575-130-006	40.89	||				
		575-130-008	18.56					
		575-130-009	20.06	||				
		575-130-010	20.07	||				
		575-130-011	19.19	||				
		575-130-012	18.18	||				
		575-130-013	19.02	||				
		575-130-014	19.00	||				
		575-130-015	17.58	||				
		575-120-012	88.03	||				
		575-120-018	20.45	||				
		575-120-019	20.45	||				
		575-120-032	4.69	||				
		575-120-033	4.69	||				
		575-120-034	4.68	||				
		575-120-035	4.28	||				
	Section 23	575-140-006	9.90	||				
* Estimated by Watermaster Office		575-140-020	90.48	0.00				

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SANTA MARGARITA RIVER WATERSHED

SUBSTANTIAL USERS OUTSIDE ORGANIZED WATER SERVICE AREAS

CURRENT OWNER	ADDRESS	ASSESSOR PARCEL NO.	PARCEL ACREAGE	ACRES IRRIGATED 2022-23	IRRIGATED CROP 2022-23	WELL/ DIVERSION LOCATION TWP/RNG/SEC	WELL PRODUCTION AC. FT	SURFACE DIVERSION AC. FT
WILSON CREEK ABOVE AGUANGA GROUNDWATER AREA								
ANZA VALLEY (Cont.)								
Cahuilla Indian Reservation	Domestic and Commercial Wells Reported by Bureau of Indian Affairs							
	Wells in Basement Complex	Wells out of Watershed	Wells with QYAL and/or QTOAL					
	7S/2E-14L1	8S/3E-2A1	7S/2E-14J1	7S/2E-28Q1	7S/3E-31L		Total	
	7S/2E-25D1	8S/3E-2B1	7S/2E-14M1	7S/2E-33C1	7S/3E-31L2		||	
	7S/2E-26B1	8S/3E-2D1	7S/2E-14M2	7S/2E-33E1	7S/3E-34E1		||	
	7S/2E-26B2	8S/3E-2E1	7S/2E-14R1	7S/2E-33N1	7S/3E-34N1		||	
	7S/2E-26B3	8S/3E-2G1	7S/2E-23A1	7S/3E-27C1	7S/3E-34Q1		||	
	7S/2E-34E1	8S/3E-2H1	7S/2E-23D1	7S/3E-27C2	8S/2E-4D1		||	
	7S/2E-36A1	8S/3E-2K1	7S/2E-23F1	7S/3E-27H1	8S/2E-4N1		||	
	7S/2E-36J1		7S/2E-23G1	7S/3E-27M1	8S/2E-4N2		||	
	7S/2E-36R1		7S/2E-23H1	7S/3E-28A1	8S/2E-4P1		||	
	7S/3E-26A1		7S/2E-23K1	7S/3E-28A2	8S/2E-4R1		||	
	7S/3E-29Q1		7S/2E-23M1	7S/3E-28D1	8S/2E-4R2		of	
	7S/3E-30H1		7S/2E-23P1	7S/3E-29C1	8S/3E-5Q1		||	
	7S/3E-31A1		7S/2E-23Q1	7S/3E-29M1	8S/3E-6J1		||	
	7S/3E-31N1		7S/2E-25C1	7S/3E-30P1			||	
	7S/3E-31Q1		7S/2E-25F1	7S/3E-30Q1			||	
	7S/3E-32D1		7S/2E-25R1	7S/3E-30R1			||	
	7S/3E-32D2		7S/2E-26E1	7S/3E-30R2			||	
	8S/3E-6B1		7S/2E-26L1	7S/3E-30R3			||	
	8S/3E-6B2		7S/2E-27A1	7S/3E-31C1			||	
	8S/3E-6G1		7S/2E-27H1	7S/3E-31F1		Domestic	63.84	
	8S/3E-6R1		7S/2E-28N1			Commercial*	24.90	
* Commercial Use includes Casino, Dust Control, and Watering of Turf Grass						Stock Watering		17.92
SUBTOTAL ANZA VALLEY				**49.00**			**157.74**	**17.92**
WILSON CREEK ABOVE AGUANGA GROUNDWATER AREA								
LEWIS VALLEY								
Moon Mountain Farms, LLC	39850 Hwy 79	571-080-012	80.00	80.00	Olive Trees	7S/1E-20Q	43.26	
Moon Valley Nursery	Anza, CA 92539	571-080-034	40.00	40.00	Olive Trees			
(Green Shell Co)	m/t 19820 North 7th Street, #260 Phoenix, AZ 85024							
	m/t 1210 Rainbow Hills Rd Fallbrook, CA 92028							
SUBTOTAL LEWIS VALLEY				**120.00**			**43.26**	**0.00**
TOTAL WILSON CREEK ABOVE AGUANGA GROUNDWATER AREA				**169.00**			**201.00**	**17.92**
MURRIETA-TEMECULA GROUNDWATER AREA								
Louidar	32320 La Serena Way	943-040-011	19.22	0.00	None	7S/2W-28L*	0.00	
	Temecula, CA 92591	943-060-010	90.76					
	m/t PO Box 891510	943-060-011	26.47					
	Temecula, CA 92591	943-120-045	87.29					
* Well reported as non-operational								
* O & C Property Management	m/t 39701 Calle Contento	927-350-027	3.09	3.00	Citrus	7S/2W-25Q	40.05	
c/o William Owen	Temecula, CA 92591	927-350-028	2.84	2.80	Citrus			
		927-350-029	2.50	2.50	Citrus			
* Estimated by Watermaster Office		927-350-030	2.27	2.25	Citrus			
Linkogle, Dorian and Leslie	41720 Calle Cabrillo,	951-080-012	4.73	3.73	Grapes	7S/2W-34L*	0.00	
	Temecula, CA 92591	951-080-013	13.42	7.42	Grapes			
		951-080-021	2.73	2.73	Grapes			
* Well currently inoperable. Approximately 20 AF purchased from RCWD.								

Well No. in parentheses designated by Watermaster.

1/ Water Use Report Form not received for water year, indicated value for irrigated acreage, production, and surface diversion assumed to be the same as last year reported.

SANTA MARGARITA RIVER WATERSHED

SUBSTANTIAL USERS OUTSIDE ORGANIZED WATER SERVICE AREAS

	CURRENT OWNER	ADDRESS	ASSESSOR PARCEL NO.	PARCEL ACREAGE	ACRES IRRIGATED 2022-23		IRRIGATED CROP 2022-23	WELL/ DIVERSION LOCATION TWP/RNG/SEC	WELL PRODUCTION AC. FT	SURFACE DIVERSION AC. FT
MURRIETA-TEMECULA GROUNDWATER AREA (cont.)										
*	Georgantopoulos, Demetrios and Effie	35550 Monte Verde Rd Temecula, CA 92591 m/t 31581 Aguacate Rd San Juan Capistrano, CA 92675 m/t 1650 S State College Blvd Anaheim, CA 92806	927-180-020	21.01	18.00	*	Citrus	8S/2W-13Q1 8S/2W-13Q(2)	Domestic 62.99	
*	Acres Irrigated estimated using aerial imagery									
	Mani, Kurian and Jaya	23464 Glenridge Drive Newhall, CA 91321	966-380-036 966-380-037	8.57 9.76	8.00 9.00		Citrus Citrus	8S/2W-13N1	25.00	
	Hansom & Associates, LP c/o Chong Hansom	45110 Los Caballos Rd Temecula, CA 92591 m/t 37812 Dorothy Ct Temecula, CA 92592	927-180-006	11.67	7.50		Grapefruit	8S/2W-24C1	14.00	
1/	Good Life Farm	m/t 31938 Temecula Prkwy, Suite A369 Temecula, CA 92592	966-380-028 966-380-029 966-380-030 966-380-031 966-380-032	13.08 12.15 12.57 10.90 10.85	0.00 12.15 3.00 2.00 10.85		Fallow Citrus Citrus Citrus Citrus	8S/2W-23A(1) 8S/2W-23A(2)	23.09 30.12	
	Yoo, Howard S.	44500 Los Caballos Rd Temecula, CA 92591 m/t 16450 Ladona Circle Huntington Beach, CA 92649	927-180-013 927-180-014 927-180-015 927-180-021	21.44 10.58 12.69 1.60	0.00 0.00 0.00 0.00			8S/2W-13*	0.00	
*	Well not located									
	Villines, Cecilia E., et al.	c/o McMillan Farm Mgt. 29379 Rancho Cal. Rd, #201 Temecula, CA 92390	942-180-002 942-240-003 942-240-004 942-240-006	40.28 40.83 40.83 39.08	40.00 40.00 40.00 35.00		Citrus Citrus Citrus Citrus	7S/2W-26B1(1) 7S/2W-26B2(2)	137.00 158.00	
	Baida Birdie Trust (Mendoza, Bertha)	m/t 35853 Calle Nopal Temecula, CA 92592	917-240-016 917-240-019	5.98 54.13	0.00 0.00				0.00 0.00	
*	Irrigated acres and well production estimated based on aerial imagery									
	Giddings, Richard	38055 Highway 79 South Aguanga, CA	917-150-002	117.76	0.00		None		0.00	
	Dynamic Financial Corporation	38695 Highway 79 South Aguanga, CA m/t 853 E. Valley Boulevard, Suite 200 San Gabriel, CA 91776	917-150-006 917-240-015	120.00 20.00	Total 65.00 45.00		Citrus Avocado	8S/1W-21K(1) 8S/1W-21K(2) 8S/1W-21P(1) 8S/1W-21P(2)	0.00 97.00 97.00 0.00	
	Carter, James A Carter Est. Winery/ Resort, LLC	Rancho California Rd. Temecula, CA m/t 3719 South Plaza Drive Santa Ana, CA 92704	942-120-007 943-230-007 943-230-008	26.14 5.65 107.03	26.00 60.00		Vineyard Vineyard	7S/2W-26L - Destroyed		
*	Water purchased for irrigation									

Well No. in parentheses designated by Watermaster.

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SANTA MARGARITA RIVER WATERSHED

SUBSTANTIAL USERS OUTSIDE ORGANIZED WATER SERVICE AREAS

	CURRENT OWNER	ADDRESS	ASSESSOR PARCEL NO.	PARCEL ACREAGE	ACRES IRRIGATED 2022-23	IRRIGATED CROP 2022-23	WELL/ DIVERSION LOCATION TWP/RNG/SEC	WELL PRODUCTION AC. FT	SURFACE DIVERSION AC. FT
	MURRIETA-TEMECULA GROUNDWATER AREA (cont.)								
*	Pechanga Resorts Inc. Temecula Creek Golf	44501 Rainbow Cyn Rd. Temecula, CA 92592 m/t 45000 Pechanga Pkwy Temecula, CA 92592	922-220-002 922-220-003 922-220-008 922-220-031 922-230-002 922-230-003 922-230-004 922-230-007	86.11 5.75 4.26 67.28 59.29 1.00 40.00 25.00	Total " " " Of " " "		8S/2W-19(D)	Total " " " of " " "	
*	Estimated by Watermaster Office		922-230-008	16.11	47.00	Grass (Golf)		84.34	
	Healthy Life Capital c/o Richard M Chaskin, Esq.	25471 Hayes Ave Murrieta, CA 92562 m/t 84 Linda Isle Newport Beach, CA 92660	909-260-036 909-260-042	8.87 4.31	2.50	Pasture	7S/3W-29G	9.50	
	TOTAL MURRIETA-TEMECULA GROUNDWATER AREA				**495.43**			**778.09**	**0.00**
	SANTA MARGARITA RIVER BELOW GORGE DE LUZ CREEK								
	Stehly Family Holdings, LLC	40922 DeLuz Road Fallbrook, CA 92028 m/t 13268 McNally Road Valley Center, CA 92082	101-240-46 101-240-50 101-271-31 101-271-32 102-580-42 102-580-43 102-731-10	27.75 57.37 9.90 44.33 23.15 11.83 17.81	10.00	Avocado/Citrus	8S/4W-29D(1) 8S/4W-29D(2)	1.00 16.00	
*	Altig, Curt	40550 DeLuz Murrieta Rd m/t 2208 Waverly Way East Seattle, WA 98112	101-272-08	81.47	14.01	Various	8S/4W-29J(1)**	20.39	
*	Estimated by Watermaster Office								
**	Well/Diversion not located								
1/	Prestininzi, Pete and Dorothy N.	41855 DeLuz Rd Fallbrook, CA 92028 m/t 22460 Bundy Canyon Road Wildomar, CA 92595	101-210-53 101-220-12	50.44 31.63	6.00 12.00	Pasture/Flowers Avocados/Citrus	8S/4W-20A(1) 8S/4W-20H(1) 8S/4W-20H(2) 8S/4W-20A - Diversion	16.00 16.00 14.00	
	Alfred Varela Sr. Family Living Trust Varela, Alfred	41125 DeLuz Road Fallbrook, CA 92028	101-210-11	15.23	8.50 0.50	Avocados Citrus	8S/4W-20Q(1) 8S/4W-20Q(2) Diversion	Total of 21.60	 12.90
1/	Lake Forest, LLC	41257 DeLuz Road Fallbrook, CA 92028 m/t 27771 Center Dr Mission Viejo, CA 92692	101-210-12	30.28	9.00 15.00 1.00	Avocados Citrus Row Crops	8S/4W-20Q(1) 8S/4W-20Q(2) 8S/4W-20Q(3)	Total of 50.00	
	Bryant Family Trust	40724 De Luz Road Fallbrook, CA 92028	101-271-19 101-271-20 101-271-21 101-271-22	19.08 5.02 11.86 6.41	Total " Of 0.00	 None	8S/4W-29E (1) 8S/4W-29E (2)	0.00 0.00	

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SANTA MARGARITA RIVER WATERSHED

SUBSTANTIAL USERS OUTSIDE ORGANIZED WATER SERVICE AREAS

CURRENT OWNER	ADDRESS	ASSESSOR PARCEL NO.	PARCEL ACREAGE	ACRES IRRIGATED 2022-23	IRRIGATED CROP 2022-23	WELL/ DIVERSION LOCATION TWP/RNG/SEC	WELL PRODUCTION AC. FT	SURFACE DIVERSION AC. FT
SANTA MARGARITA RIVER BELOW GORGE DE LUZ CREEK (Cont.)								
Guided Farms, LLC	40787 DeLuz-Murrieta Rd.	101-240-12	11.26		Fallow			
Attn: Phoebe Welburn	Fallbrook, CA 92028	101-271-29	73.11			8S/4W-29M	25.00	
						8S/4W-30J	4.00	
		101-571-20**	4.00	2.00	Gourds			
** Parcels owned by Phoebe Welburn		101-571-21**	14.28	1.00	Fruit Trees Gourds	8S/4W-28G(1)	18.00	
Mary Salcido	41128 DeLuz Road	101-210-22	4.55	3.00	Persimmons			
	Fallbrook, CA 92028	101-210-23	17.19	15.00	Avocados	8S/4W-20P(1)		
						8S/4W-20P(2)		
						8S/4W-20P(3)		
						8S/4W-20P(4)	39.30	
Lee, Charles and Catherine	44952 Vista Del Mar	933-120-016	9.39	9.00	Avocados/Lemons			
	Temecula, CA 92590	933-120-017	9.48	9.00	Avocados/Lemons			
		933-120-018	8.47	8.00	Avocados			
		933-120-019	9.63	9.00	Avocados			
		933-120-042	20.00	12.00	Avocados	8S/4W-15L	None	
** Water purchased for irrigation								
Chambers Family, LLC	40888 DeLuz-Murrieta Road	101-571-03*	41.72	Total	Fruit Trees	8S/4W-28A	25.00	
	38664 DeLuz Road			of	Flowers	8S/4W-28A - Diversion		8.00
	Fallbrook, CA 92028	102-130-20	18.77	50.00				
	m/t Anne Chambers	102-130-42*	54.37			9S/4W-9B(1)	30.00	
	3929 Campolindo Dr.					9S/4W-9B(2)	1.00	
	Moraga, CA 94556					9S/4W-9B(3)	30.00	
* Parcels are not within jurisdiction, but may be irrigated with wells and/or surface water that are within jurisdiction								
* Cedano, Andres and Laura	2193 Calle Rociado	101-312-01	82.29	Total	Misc.	8S/4W-31L	Total	
	Fallbrook, CA 92028			||		8S/4W-31K(3)	||	
	m/t 2581 Pioneer Ave #A			of		8S/4W-31K(1)	of	
	Vista, CA 92081	101-312-02	58.17	0.00		8S/4W-31K(2)	0.00	
	Vista, CA 92081					8S/4W-31L - Diversion		
* Estimated by Watermaster Office								
Norman and Deborah Vanginkel Trust	39452 DeLuz Road	101-312-03	80.00			8S/4W-31J(2)	10.00	
	Fallbrook, CA 92028					8S/4W-31J(3)		
						8S/4W-31J(4)	32.00	
						8S/4W-31J(5)		
		102-052-04	22.04	20.00	Avocados			
		102-731-02	4.26					
Rose Family 1985 Trust	39985 Daily Road	101-430-30	16.39	11.00	Flowers			
Attn: Ross Rose	Fallbrook, CA 92028	101-480-14	13.20			8S/4W-34- Lake Diversion		0.00
	m/t P.O. Box 462810	101-500-01	16.62	11.00	Flowers			
	Escondido, CA 92046							
** Water purchased for irrigation								
SUBTOTAL DELUZ CREEK				**236.01**			**369.29**	**20.90**

Well No. in parentheses designated by Watermaster.

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SANTA MARGARITA RIVER WATERSHED

SUBSTANTIAL USERS OUTSIDE ORGANIZED WATER SERVICE AREAS

CURRENT OWNER	ADDRESS	ASSESSOR PARCEL NO.	PARCEL ACREAGE	ACRES IRRIGATED 2022-23	IRRIGATED CROP 2022-23	WELL/ DIVERSION LOCATION TWP/RNG/SEC	WELL PRODUCTION AC. FT	SURFACE DIVERSION AC. FT
SANTA MARGARITA RIVER BELOW GORGE (Cont.)								
SANDIA CREEK								
1/ Serafina Holdings, LLC	40376 Sandia Creek	101-360-40	126.32	15.00	Avocados	8S/4W-25P(1)	40.20	
Attn: Fabien Tremoulet	Fallbrook, CA 92028			11.00	Grapes	8S/4W-25P(2)	17.78	
				43.00	Olives	8S/4W-25P(3)	81.00	
* Estimated by Watermaster						8S/4W-25P - Diversion		
SUBTOTAL SANDIA CREEK				**69.00**			**138.98**	**0.00**
SANTA MARGARITA RIVER								
San Diego State	47981 Willow Glen Rd.	918-040-011	120.00	5.00	Citrus	8S/3W-33Q1	6.72	
University Foundation	Temecula, CA 92592			15.00	Avocados	8S/3W-33Q(2)		
Attn: Pablo Bryant	SDSU Foundation			1.00	Grapes	8S/3W-33Q - Diversion		6.72
	5200 Campanile Dr.							
	San Diego, CA 92182-4614							
SUBTOTAL SANTA MARGARITA RIVER				**21.00**			**6.72**	**6.72**
TOTAL SANTA MARGARITA RIVER BELOW GORGE				**326.01**			**514.99**	**27.62**
LOWER MURRIETA								
Ronnenberg, Clifford	42522 E. Benton Rd.	470-210-007*	53.62	Total				
(Sage Ranch Nursery)	Aguanga, CA 92536	470-220-004*	109.23	||				
	m/t c/o Cliff Ronnenberg	571-020-046*	81.09	||				
	11292 Western Avenue	571-020-047*	40.80	||				
	Stanton, CA 90680	571-020-048*	36.75	||				
		571-020-049	148.86	||		7S/1E-7D	5.50	
				||		7S/1E-7		
		571-520-004*	1.50	Of		7S/1E-7E - Diversion		100.00
		571-520-007*	109.50	||				
		571-520-008*	99.43	||				
		571-520-009*	80.23	||				
		571-520-012	77.54	||				
		915-140-069*	91.56	||				
		915-140-070*	21.54	300.00				
* Parcels are not within jurisdiction, but may be irrigated with wells and/or surface water that are within jurisdiction								
EG High Desert	39800 E. Benton Rd.	915-120-045	37.45	10.00	Pasture	7S/1W-10R(1)	Total	
Properties, LLC	Temecula, CA 92390					7S/1W-10R(2)	||	
Attn: Enrique Gonzalez Jr.	m/t 12881 Bradley Avenue					7S/1W-10R(3)	||	
	Sylmar, CA 91342					7S/1W-10R(4)	Of	
						7S/1W-10R(7)	||	
						7S/1W-10R(6)	38.00	
						7S/1W-10R(5) - Domestic		
TOTAL LOWER MURRIETA				**310.00**			**43.50**	**100.00**
GRAND TOTAL				**2,405.28**			**3,905.79**	**510.54**
GRAND TOTAL (Not including Cahuilla Indian Reservation)				**2,405.28**			**3,817.05**	**492.62**

Well No. in parentheses designated by Watermaster.

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SANTA MARGARITA RIVER WATERSHED

ANNUAL WATERMASTER REPORT

WATER YEAR 2022-23

APPENDIX D

WATER QUALITY DATA

JULY 2025

TABLE D-3
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Western Municipal Water District
Murrieta Division

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
Alson Well										
6/6/1990	1,520	915	138.0	46.0	110.0	1.0	250.0	81.0	433.0	7.0
7/21/1998	1,260	880	100.0	37.0	120.0	ND	180.0	92.0	330.0	5.2
9/9/1998	1,200	850	110.0	39.0	120.0	ND	180.0	100.0	320.0	5.2
5/3/2000	-	-	-	-	-	-	-	-	-	4.5
5/19/2000	1,290	800	97.0	36.0	110.0	ND	180.0	96.0	330.0	4.3
11/28/2001	1,290	750	93.0	33.0	110.0	ND	180.0	96.0	310.0	3.8
3/6/2002	-	-	-	-	-	-	-	-	-	4.5
7/1/2002	-	650	-	-	-	-	-	-	270.0	-
10/3/2003	880	550	80.0	26.0	95.0	-	ND	ND	259.0	ND
1/27/2005	1,100	640	100.0	32.0	110.0	-	150.0	81.0	320.0	-
1/26/2006	1,500	870	120.0	41.0	120.0	1.2	230.0	120.0	-	4.1
4/12/2006	-	-	-	-	-	-	-	-	-	4.3
5/10/2006	-	-	-	-	-	-	-	-	-	4.1
6/28/2006	-	-	-	-	-	-	-	-	-	4.5
7/26/2006	-	-	-	-	-	-	-	-	-	4.5
8/23/2006	-	-	-	-	-	-	-	-	-	4.1
9/27/2006	-	-	-	-	-	-	-	-	-	4.8
10/25/2006	-	-	-	-	-	-	-	-	-	5.0
11/22/2006	-	-	-	-	-	-	-	-	-	5.0
12/27/2006	-	-	-	-	-	-	-	-	-	4.8
1/24/2007	-	-	-	-	-	-	-	-	-	5.0
2/28/2007	-	-	-	-	-	-	-	-	-	5.0
3/29/2007	-	-	-	-	-	-	-	-	-	5.2
4/25/2007	-	-	-	-	-	-	-	-	-	4.3
Holiday Well										
6/16/1989	1,300	775	122.0	39.0	100.0	2.0	178.0	66.0	372.0	9.0
10/18/1991	-	-	-	-	-	-	-	-	-	5.7
11/15/1991	-	-	-	-	-	-	-	-	-	5.9
12/13/1991	-	-	-	-	-	-	-	-	-	6.3
1/10/1992	-	-	-	-	-	-	-	-	-	6.1
2/7/1992	-	-	-	-	-	-	-	-	-	6.1
5/1/1992	-	-	-	-	-	-	-	-	-	7.2
5/29/1992	-	-	-	-	-	-	-	-	-	6.3
8/21/1992	-	-	-	-	-	-	-	-	-	6.1
1/22/1993	960	605	83.0	29.0	83.0	2.0	130.0	84.0	278.0	7.5
10/15/1993	-	-	-	-	-	-	-	-	-	7.2
3/30/1994	-	-	-	-	-	-	-	-	-	10.0
6/22/1994	-	-	-	-	-	-	-	-	-	7.9
9/14/1994	-	-	-	-	-	-	-	-	-	7.0
12/7/1994	-	-	-	-	-	-	-	-	-	6.8
3/1/1995	-	-	-	-	-	-	-	-	-	7.2
6/21/1995	-	-	-	-	-	-	-	-	-	2.5
9/13/1995	-	-	-	-	-	-	-	-	-	6.1
12/6/1995	-	-	-	-	-	-	-	-	-	5.9
3/27/1996	-	-	-	-	-	-	-	-	-	3.4
6/6/1996	-	-	-	-	-	-	-	-	-	5.4
9/11/1996	-	-	-	-	-	-	-	-	-	5.0
11/8/1996	-	-	-	-	-	-	-	-	-	12.4
11/14/1996	-	-	-	-	-	-	-	-	-	5.7
12/5/1996	-	-	-	-	-	-	-	-	-	5.4
3/27/1997	-	-	-	-	-	-	-	-	-	4.5
6/18/1997	-	-	-	-	-	-	-	-	-	4.8
12/3/1997	-	-	-	-	-	-	-	-	-	4.1
3/25/1998	-	-	-	-	-	-	-	-	-	4.8
4/22/1998	1,090	680	89.0	29.0	85.0	1.0	150.0	76.0	290.0	5.0
6/17/1998	-	-	-	-	-	-	-	-	-	5.2
10/1/1998	-	-	-	-	-	-	-	-	-	5.7
12/2/1998	-	-	-	-	-	-	-	-	-	6.3
2/24/1999	-	-	-	-	-	-	-	-	-	7.5
3/24/1999	-	-	-	-	-	-	-	-	-	5.9
9/9/1999	-	-	-	-	-	-	-	-	-	8.1
12/3/1999	-	-	-	-	-	-	-	-	-	7.2
7/12/2000	-	-	-	-	-	-	-	-	-	4.8
8/4/2000	1,290	790	110.0	36.0	99.0	-	180.0	110.0	320.0	4.8
10/24/2001	-	-	-	-	-	-	-	-	-	3.8
3/6/2002	-	-	-	-	-	-	-	-	-	3.4

NOTES:
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TABLE D-3
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Western Municipal Water District
Murrieta Division

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
7/11/2002	-	780	-	-	-	-	-	-	310.0	-
10/3/2003	-	800	113.0	-	-	-	-	-	332.0	-
4/21/2004	-	-	-	-	-	-	-	-	-	2.5
1/27/2005	-	980	160.0	47.0	-	-	-	-	440.0	-
3/30/2005	-	-	-	-	-	-	-	-	-	7.9
1/26/2006	1,700	1,000	160.0	48.0	130.0	1.6	240.0	130.0	-	10.4
1/30/2006	-	-	-	-	-	-	-	-	-	11.1
House Well										
6/16/1989	660	345	34.0	3.0	95.0	2.0	87.0	60.0	153.0	ND
2/27/1991	770	-	-	-	-	-	110.0	65.0	168.0	ND
3/1/1991	730	-	-	-	-	-	110.0	-	-	ND
3/8/1991	680	420	42.0	5.0	90.0	2.0	110.0	68.0	122.0	ND
5/10/1991	750	-	-	-	-	-	-	-	-	ND
10/11/1991	-	-	-	-	-	-	-	-	-	ND
11/8/1991	-	-	-	-	-	-	-	-	-	ND
5/22/1992	-	-	-	-	-	-	-	-	-	ND
8/14/1992	-	-	-	-	-	-	-	-	-	ND
1/22/1993	720	415	40.0	5.0	106.0	2.0	100.0	68.0	168.0	ND
9/7/1994	-	-	-	-	-	-	-	-	-	ND
3/22/1995	-	-	-	-	-	-	-	-	-	ND
6/14/1995	-	-	-	-	-	-	-	-	-	ND
9/6/1995	-	-	-	-	-	-	-	-	-	ND
12/27/1995	-	-	-	-	-	-	-	-	-	ND
3/20/1996	-	-	-	-	-	-	-	-	-	ND
6/12/1996	-	-	-	-	-	-	-	-	-	ND
9/4/1996	-	-	-	-	-	-	-	-	-	ND
12/26/1996	-	-	-	-	-	-	-	-	-	ND
3/19/1997	-	-	-	-	-	-	-	-	-	ND
6/12/1997	-	-	-	-	-	-	-	-	-	ND
12/30/1997	-	-	-	-	-	-	-	-	-	ND
3/18/1998	-	-	-	-	-	-	-	-	-	ND
4/15/1998	660	360	30.0	3.0	94.0	1.0	91.0	62.0	130.0	ND
6/10/1998	-	-	-	-	-	-	-	-	-	ND
10/1/1998	-	-	-	-	-	-	-	-	-	ND
12/23/1998	-	-	-	-	-	-	-	-	-	ND
2/17/1999	-	-	-	-	-	-	-	-	-	ND
3/17/1999	-	-	-	-	-	-	-	-	-	ND
6/9/1999	-	-	-	-	-	-	-	-	-	ND
9/1/1999	-	-	-	-	-	-	-	-	-	ND
12/22/1999	-	-	-	-	-	-	-	-	-	ND
3/15/2000	640	370	29.0	3.0	92.0	2.0	82.0	61.0	130.0	ND
6/7/2000	-	-	-	-	-	-	-	-	-	ND
9/27/2000	-	-	-	-	-	-	-	-	-	ND
10/24/2001	-	-	-	-	-	-	-	-	-	ND
3/6/2002	-	-	-	-	-	-	-	-	-	ND
7/11/2002	-	440	-	-	-	-	-	-	170.0	-
10/3/2003	630	380	34.0	3.0	103.0	-	87.0	-	140.0	ND
4/21/2004	-	-	-	-	-	-	-	-	-	ND
Lynch Well										
6/16/1989	760	410	70.0	17.0	55.0	1.0	86.0	30.0	262.0	1.8
New Clay Well										
3/9/2004	480	340	23.0	1.0	87.0	1.0	79.0	64.0	98.0	ND
1/26/2006	590	310	20.0	1.2	93.0	1.2	85.0	57.0	-	ND
1/31/2006	-	-	-	-	-	-	-	-	-	1.6
4/4/2006	-	-	-	-	-	-	-	-	-	ND
4/12/2006	-	-	-	-	-	-	-	-	-	ND
5/10/2006	-	-	-	-	-	-	-	-	-	ND
6/7/2006	-	-	-	-	-	-	-	-	-	ND
7/5/2006	-	-	-	-	-	-	-	-	-	ND
8/2/2006	-	-	-	-	-	-	-	-	-	ND
9/6/2006	-	-	-	-	-	-	-	-	-	ND
10/4/2006	-	-	-	-	-	-	-	-	-	ND
11/1/2006	-	-	-	-	-	-	-	-	-	ND
12/6/2006	-	-	-	-	-	-	-	-	-	ND
1/4/2007	-	-	-	-	-	-	-	-	-	ND

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TABLE D-3
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Western Municipal Water District
Murrieta Division

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
2/7/2007	-	-	-	-	-	-	-	-	-	ND
3/7/2007	-	-	-	-	-	-	-	-	-	ND
4/4/2007	-	-	-	-	-	-	-	-	-	ND
5/2/2007	-	-	-	-	-	-	-	-	-	ND
6/6/2007	-	-	-	-	-	-	-	-	-	ND
7/5/2007	-	-	-	-	-	-	-	-	-	ND
8/1/2007	-	-	-	-	-	-	-	-	-	ND
8/15/2007	510	270	13.0	ND	91.0	1.0	65.0	50.0	83.0	ND
9/5/2007	-	-	-	-	-	-	-	-	-	ND
12/4/2007	-	-	-	-	-	-	-	-	-	ND
3/26/2008	-	-	-	-	-	-	-	-	-	ND
4/23/2008	-	-	-	-	-	-	-	-	-	ND
5/5/2008	-	-	-	-	-	-	-	-	-	ND
6/2/2008	-	-	-	-	-	-	-	-	-	ND
7/7/2008	-	-	-	-	-	-	-	-	-	ND
9/2/2008	-	-	-	-	-	-	-	-	-	ND
1/19/2009	-	-	-	-	-	-	-	-	-	ND
11/13/2009	630	350	25.0	4.7	97.0	1.5	84.0	76.0	110.0	ND
11/17/2009	-	-	-	-	-	-	-	-	-	ND
8/25/2011	700	380	30.0	2.7	110.0	1.8	97.0	62.0	150.0	ND
5/21/2012	-	-	-	-	-	-	-	-	-	ND
6/1/2012	590	340	19.0	ND	93.0	1.4	83.0	56.0	110.0	ND
10/4/2012	600	340	20.0	ND	96.0	1.1	84.0	55.0	110.0	ND
11/5/2012	560	320	18.0	ND	93.0	1.1	82.0	60.0	100.0	ND
11/14/2012	-	-	-	-	-	-	-	-	-	ND
12/4/2012	550	340	16.0	ND	91.0	ND	74.0	58.0	96.0	ND
12/10/2012	-	-	-	-	-	-	-	-	-	ND
1/7/2013	560	340	19.0	ND	96.0	1.1	78.0	57.0	93.0	ND
1/14/2013	-	-	-	-	-	-	-	-	-	ND
2/5/2013	540	300	17.0	ND	85.0	2.0	75.0	57.0	98.0	ND
2/11/2013	-	-	-	-	-	-	-	-	-	ND
3/4/2013	590	300	19.0	ND	98.0	ND	82.0	58.0	150.0	ND
3/11/2013	-	-	-	-	-	-	-	-	-	ND
4/9/2013	520	280	18.0	ND	91.0	1.0	74.0	56.0	80.0	ND
5/5/2014	610	340	23.0	ND	93.0	1.3	84.0	60.0	100.0	ND
5/12/2014	-	-	-	-	-	-	-	-	-	ND
5/28/2014	-	-	23.0	ND	100.0	1.3	-	-	-	-
6/2/2014	580	340	22.0	ND	94.0	1.1	81.0	58.0	100.0	ND
6/16/2014	-	-	-	-	-	-	-	-	-	ND
7/7/2014	560	310	21.0	ND	94.0	1.2	80.0	56.0	94.0	ND
8/11/2014	560	270	21.0	ND	92.0	1.2	81.0	62.0	98.0	ND
11/3/2014	580	360	20.0	ND	95.0	1.2	82.0	59.0	95.0	ND
12/1/2014	-	-	-	-	-	-	-	-	-	ND
1/6/2015	-	-	-	-	-	-	-	-	-	ND
2/3/2015	-	-	-	-	-	-	-	-	-	ND
3/3/2015	-	-	-	-	-	-	-	-	-	ND
4/7/2015	-	-	-	-	-	-	-	-	-	ND
5/5/2015	-	-	-	-	-	-	-	-	-	ND
6/15/2015	-	-	-	-	-	-	-	-	-	ND
7/6/2015	-	-	-	-	-	-	-	-	-	ND
9/1/2015	-	-	-	-	-	-	-	-	-	ND
10/6/2015	600	310	20.0	ND	96.0	ND	85.0	59.0	100.0	ND
11/3/2015	590	360	20.0	ND	97.0	ND	87.0	61.0	96.0	ND
12/1/2015	580	340	20.0	ND	100.0	1.1	83.0	56.0	94.0	ND
1/7/2016	620	440	18.0	ND	95.0	1.0	86.0	60.0	90.0	ND
2/9/2016	880	540	69.0	14.0	99.0	1.7	120.0	61.0	230.0	ND
9/15/2016	590	320	18.0	ND	97.0	ND	78.0	55.0	87.0	ND
10/9/2016	630	350	19.0	ND	98.0	ND	85.0	60.0	92.0	ND
11/1/2016	600	310	19.0	ND	95.0	1.0	85.0	58.0	98.0	ND
12/16/2016	580	360	20.0	ND	100.0	1.1	86.0	59.0	98.0	ND
1/11/2017	600	340	21.0	ND	110.0	1.0	89.0	61.0	99.0	ND
3/7/2017	590	350	21.0	ND	98.0	1.1	86.0	59.0	120.0	ND
4/11/2017	620	320	-	-	-	-	88.0	61.0	83.0	ND
5/2/2017	-	-	-	-	-	-	-	-	-	ND
5/4/2017	600	340	-	-	-	-	86.0	58.0	82.0	ND
6/5/2017	-	-	-	-	-	-	-	-	-	ND
6/7/2017	590	330	20.0	ND	95.0	1.1	89.0	60.0	83.0	ND
6/15/2017	580	340	20.0	ND	98.0	1.2	85.0	57.0	77.0	ND

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Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Western Municipal Water District
Murrieta Division

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
8/8/2017	580	310	19.0	ND	96.0	1.0	84.0	58.0	74.0	ND
9/5/2017	590	330	-	-	-	-	90.0	61.0	76.0	ND
10/3/2017	600	290	21.0	ND	98.0	1.2	90.0	62.0	81.0	ND
11/5/2017	600	350	22.0	ND	98.0	1.3	90.0	62.0	88.0	ND
12/5/2017	590	320	20.0	ND	97.0	1.3	85.0	57.0	83.0	ND
1/2/2018	580	340	21.0	ND	98.0	1.4	94.0	65.0	84.0	ND
2/6/2018	600	340	22.0	ND	100.0	1.3	89.0	60.0	81.0	ND
3/6/2018	600	330	21.0	ND	98.0	1.3	90.0	66.0	83.0	ND
4/10/2018	550	300	13.0	ND	95.0	ND	78.0	58.0	77.0	ND
5/1/2018	580	340	20.0	ND	95.0	1.2	90.0	62.0	84.0	ND
6/5/2018	590	340	22.0	ND	100.0	1.2	92.0	65.0	92.0	ND
7/3/2018	600	350	22.0	ND	110.0	1.2	91.0	64.0	91.0	ND
8/6/2018	580	340	21.0	ND	99.0	1.1	90.0	63.0	86.0	ND
9/7/2018	590	340	19.0	ND	98.0	ND	94.0	66.0	94.0	ND
9/11/2018	590	340	20.0	ND	99.0	ND	91.0	63.0	93.0	ND
10/2/2018	600	340	20.0	ND	98.0	1.3	92.0	65.0	82.0	ND
11/6/2018	600	360	21.0	ND	100.0	1.3	93.0	65.0	82.0	ND
12/4/2018	590	330	22.0	ND	100.0	1.1	87.0	61.0	82.0	ND
1/3/2019	590	330	20.0	ND	96.0	1.3	88.0	62.0	82.0	ND
2/5/2019	-	-	-	-	-	-	-	-	-	ND
2/12/2019	590	330	20.0	ND	100.0	1.3	91.0	63.0	81.0	ND
3/5/2019	590	340	21.0	ND	99.0	1.2	93.0	65.0	81.0	ND
4/2/2019	600	340	21.0	ND	99.0	1.3	91.0	63.0	85.0	ND
5/7/2019	590	320	21.0	ND	100.0	1.2	92.0	64.0	89.0	ND
6/4/2019	580	320	21.0	ND	99.0	1.3	91.0	63.0	92.0	ND
7/2/2019	580	340	21.0	ND	100.0	1.3	90.0	63.0	83.0	ND
8/6/2019	580	330	21.0	ND	98.0	1.3	94.0	62.0	81.0	ND
9/6/2019	-	-	-	-	-	-	-	-	-	ND
9/10/2019	530	300	12.0	ND	97.0	ND	78.0	58.0	62.0	ND
10/2/2019	-	-	-	-	-	-	-	-	-	ND
10/8/2019	590	340	21.0	ND	100.0	1.3	93.0	65.0	81.0	ND
11/5/2019	580	320	20.0	ND	110.0	1.2	91.0	63.0	80.0	ND
12/3/2019	590	320	21.0	ND	94.0	1.2	92.0	63.0	79.0	ND
1/7/2020	580	340	22.0	ND	100.0	1.1	93.0	64.0	80.0	ND
2/3/2020	600	320	20.0	ND	99.0	ND	92.0	65.0	80.0	ND
3/2/2020	520	310	20.0	ND	99.0	ND	93.0	65.0	79.0	ND
4/1/2020	600	340	21.0	ND	99.0	ND	93.0	64.0	79.0	ND
4/6/2020	-	-	-	-	-	-	-	-	-	ND
5/14/2020	600	310	18.0	ND	96.0	ND	96.0	64.0	76.0	ND
6/2/2020	570	310	21.0	ND	97.0	1.0	96.0	66.0	78.0	ND
7/6/2020	560	310	22.0	ND	98.0	1.3	99.0	67.0	80.0	ND
8/3/2020	560	340	22.0	ND	97.0	1.1	95.0	63.0	77.0	ND
9/1/2020	580	300	21.0	ND	99.0	1.1	93.0	63.0	78.0	ND
10/5/2020	-	-	-	-	-	-	-	-	-	ND
10/6/2020	580	320	21.0	ND	100.0	1.2	96.0	65.0	79.0	ND
11/2/2020	-	-	-	-	-	-	-	-	-	ND
11/3/2020	560	290	21.0	ND	96.0	1.1	95.0	65.0	77.0	ND
12/2/2020	560	330	18.0	ND	97.0	1.2	90.0	63.0	73.0	ND
1/4/2021	-	-	-	-	-	-	-	-	-	ND
1/5/2021	600	330	21.0	ND	95.0	1.1	96.0	65.0	80.0	ND
2/1/2021	580	340	22.0	ND	98.0	ND	94.0	64.0	76.0	ND
3/1/2021	600	330	21.0	ND	100.0	1.3	91.0	61.0	77.0	ND
4/5/2021	600	330	21.0	ND	98.0	ND	95.0	65.0	77.0	ND
5/4/2021	590	330	21.0	ND	99.0	1.3	94.0	64.0	77.0	ND
6/1/2021	590	340	20.0	ND	100.0	1.2	98.0	67.0	77.0	ND
7/6/2021	570	340	19.0	ND	98.0	1.2	92.0	64.0	72.0	ND
8/3/2021	570	330	20.0	ND	98.0	1.3	92.0	64.0	82.0	ND
9/7/2021	590	330	19.0	ND	96.0	1.1	97.0	66.0	76.0	ND
9/16/2021	570	280	21.0	ND	100.0	1.2	92.0	64.0	74.0	ND
4/5/2022	-	-	-	-	-	-	-	-	-	ND
5/3/2022	-	-	-	-	-	-	-	-	-	ND
6/1/2022	550	320	21.0	ND	99.0	1.2	94.0	64.0	77.0	ND
10/4/2022	450	270	6.9	ND	92.0	ND	66.0	52.0	85.0	ND
12/1/2022	520	330	23.0	ND	98.0	1.4	95.0	62.0	89.0	0.2
4/26/2023	460	250	5.0	ND	85.0	ND	77.0	80.0	36.0	ND
5/23/2023	600	330	22.0	ND	97.0	1.3	99.0	66.0	84.0	ND
6/6/2023	590	320	23.0	ND	100.0	1.3	100.0	67.0	96.0	ND
7/3/2023	580	340	22.0	ND	97.0	1.3	96.0	63.0	97.0	ND

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Water Quality Data

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
8/1/2023	590	320	-	-	-	-	91.0	64.0	110.0	ND
8/17/2023	-	-	-	-	-	-	-	-	-	ND
9/5/2023	600	330	-	-	-	-	91.0	62.0	82.0	ND
9/8/2023	-	-	-	-	-	-	-	-	-	ND
North Well										
6/16/1989	730	390	40.0	7.0	98.0	2.0	98.0	45.0	201.0	ND
10/25/1991	-	-	-	-	-	-	-	-	-	ND
11/22/1991	-	-	-	-	-	-	-	-	-	ND
5/8/1992	-	-	-	-	-	-	-	-	-	ND
8/28/1992	-	-	-	-	-	-	-	-	-	ND
1/22/1993	680	405	39.0	8.0	99.0	2.0	100.0	51.0	183.0	ND
10/22/1993	-	-	-	-	-	-	-	-	-	ND
7/8/1994	810	520	-	-	87.0	-	130.0	53.0	-	ND
9/21/1994	-	-	-	-	-	-	-	-	-	ND
12/14/1994	-	-	-	-	-	-	-	-	-	ND
3/8/1995	-	-	-	-	-	-	-	-	-	ND
6/28/1995	-	-	-	-	-	-	-	-	-	ND
9/20/1995	-	-	-	-	-	-	-	-	-	ND
12/13/1995	-	-	-	-	-	-	-	-	-	ND
3/6/1996	-	-	-	-	-	-	-	-	-	ND
6/26/1996	-	-	-	-	-	-	-	-	-	ND
9/18/1996	-	-	-	-	-	-	-	-	-	ND
12/11/1996	-	-	-	-	-	-	-	-	-	ND
6/25/1997	-	-	-	-	-	-	-	-	-	ND
7/8/1998	760	460	49.0	9.0	100.0	2.0	110.0	51.0	220.0	ND
10/1/1998	-	-	-	-	-	-	-	-	-	ND
12/9/1998	-	-	-	-	-	-	-	-	-	ND
2/3/1999	-	-	-	-	-	-	-	-	-	ND
3/3/1999	-	-	-	-	-	-	-	-	-	ND
6/23/1999	-	-	-	-	-	-	-	-	-	ND
9/22/1999	-	-	-	-	-	-	-	-	-	ND
12/8/1999	-	-	-	-	-	-	-	-	-	ND
1/5/2000	780	440	47.0	9.0	100.0	ND	99.0	48.0	210.0	ND
5/3/2000	-	-	-	-	-	-	-	-	-	ND
7/19/2000	-	-	-	-	-	-	-	-	-	ND
10/24/2001	-	-	-	-	-	-	-	-	-	ND
3/6/2002	-	-	-	-	-	-	-	-	-	ND
7/11/2002	-	420	-	-	-	-	-	-	180.0	-
10/3/2003	-	440	53.0	-	-	-	-	-	-	-
4/21/2004	-	-	-	-	-	-	-	-	-	ND
1/27/2005	-	440	59.0	10.0	-	-	-	-	230.0	-
3/30/2005	-	-	-	-	-	-	-	-	-	ND
1/26/2006	820	450	60.0	11.0	96.0	2.0	120.0	52.0	-	0.2
5/10/2006	-	-	-	-	-	-	-	-	-	ND
7/19/2006	-	-	-	-	-	-	-	-	-	ND
8/16/2006	-	-	-	-	-	-	-	-	-	ND
9/20/2006	-	-	-	-	-	-	-	-	-	ND
10/18/2006	-	-	-	-	-	-	-	-	-	ND
11/15/2006	-	-	-	-	-	-	-	-	-	ND
1/17/2007	-	-	-	-	-	-	-	-	-	ND
2/21/2007	-	-	-	-	-	-	-	-	-	ND
3/21/2007	-	-	-	-	-	-	-	-	-	ND
4/18/2007	-	-	-	-	-	-	-	-	-	ND
5/16/2007	-	-	-	-	-	-	-	-	-	ND
7/23/2007	-	-	-	-	-	-	-	-	-	-
7/26/2007	-	-	-	-	-	-	-	-	-	-
8/15/2007	830	520	59.0	11.0	89.0	1.2	110.0	54.0	230.0	ND
9/19/2007	-	-	-	-	-	-	-	-	-	ND
12/4/2007	-	-	-	-	-	-	-	-	-	0.3
1/24/2008	-	-	-	-	-	-	-	-	-	0.4
3/26/2008	-	-	-	-	-	-	-	-	-	0.6
4/23/2008	-	-	-	-	-	-	-	-	-	0.5
5/19/2008	-	-	-	-	-	-	-	-	-	0.5
6/16/2008	-	-	-	-	-	-	-	-	-	0.5
7/21/2008	-	-	-	-	-	-	-	-	-	ND
9/15/2008	-	-	-	-	-	-	-	-	-	0.5
1/19/2009	-	-	-	-	-	-	-	-	-	0.2

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Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Western Municipal Water District
Murrieta Division

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
2/23/2009	-	-	-	-	-	-	-	-	-	ND
3/16/2009	-	-	-	-	-	-	-	-	-	ND
4/20/2009	-	-	-	-	-	-	-	-	-	ND
5/18/2009	-	-	-	-	-	-	-	-	-	ND
6/2/2009	830	470	54.0	11.0	92.0	1.6	100.0	54.0	230.0	ND
6/8/2009	830	410	57.0	10.0	89.0	1.6	110.0	54.0	230.0	ND
6/15/2009	-	-	-	-	-	-	-	-	-	ND
7/7/2009	870	490	51.0	9.8	87.0	1.5	110.0	56.0	220.0	-
7/20/2009	830	460	54.0	10.0	90.0	1.7	110.0	52.0	220.0	ND
8/3/2009	820	480	49.0	9.4	82.0	1.4	120.0	49.0	220.0	ND
8/25/2009	-	-	-	-	-	-	-	-	-	0.3
9/8/2009	800	460	55.0	11.0	97.0	1.7	120.0	52.0	220.0	ND
9/21/2009	-	-	-	-	-	-	-	-	-	0.2
10/5/2009	780	470	55.0	11.0	97.0	1.8	110.0	53.0	220.0	ND
10/19/2009	-	-	-	-	-	-	-	-	-	ND
11/2/2009	790	470	55.0	11.0	91.0	1.7	110.0	53.0	220.0	ND
11/16/2009	-	-	-	-	-	-	-	-	-	ND
12/7/2009	810	480	56.0	11.0	94.0	1.8	110.0	52.0	220.0	ND
12/21/2009	-	-	-	-	-	-	-	-	-	ND
1/4/2010	810	470	57.0	11.0	91.0	1.7	110.0	52.0	220.0	ND
1/18/2010	-	-	-	-	-	-	-	-	-	ND
2/1/2010	860	460	59.0	13.0	87.0	1.7	110.0	54.0	240.0	0.3
2/17/2010	-	-	-	-	-	-	-	-	-	0.2
3/1/2010	810	460	56.0	11.0	88.0	1.7	110.0	55.0	220.0	ND
3/15/2010	-	-	-	-	-	-	-	-	-	ND
4/7/2010	820	450	56.0	11.0	92.0	1.5	110.0	52.0	220.0	ND
4/19/2010	-	-	-	-	-	-	-	-	-	ND
5/3/2010	810	450	57.0	11.0	92.0	1.5	110.0	52.0	220.0	ND
5/17/2010	-	-	-	-	-	-	-	-	-	0.2
6/1/2010	820	520	52.0	11.0	90.0	1.9	100.0	50.0	220.0	ND
6/21/2010	-	-	-	-	-	-	-	-	-	ND
7/19/2010	-	-	-	-	-	-	-	-	-	ND
8/2/2010	830	470	52.0	10.0	88.0	1.7	100.0	47.0	220.0	ND
8/16/2010	-	-	-	-	-	-	-	-	-	ND
11/17/2010	830	510	51.0	20.0	78.0	3.6	94.0	160.0	120.0	ND
2/1/2011	860	480	59.0	12.0	95.0	1.7	110.0	54.0	220.0	ND
4/4/2011	800	460	53.0	11.0	93.0	1.6	110.0	52.0	210.0	ND
4/18/2011	-	-	-	-	-	-	-	-	-	ND
6/21/2011	-	-	-	-	-	-	-	-	-	ND
7/18/2011	-	-	-	-	-	-	-	-	-	ND
8/16/2011	-	-	-	-	-	-	-	-	-	ND
9/19/2011	-	-	-	-	-	-	-	-	-	ND
10/3/2011	770	470	55.0	11.0	97.0	1.9	110.0	54.0	210.0	ND
10/17/2011	-	-	-	-	-	-	-	-	-	ND
11/2/2011	820	440	55.0	11.0	92.0	1.8	110.0	54.0	200.0	ND
11/15/2011	-	-	-	-	-	-	-	-	-	0.2
12/6/2011	820	510	52.0	10.0	95.0	1.6	120.0	55.0	200.0	0.2
12/19/2011	-	-	-	-	-	-	-	-	-	0.2
12/28/2011	820	440	53.0	11.0	93.0	1.8	110.0	54.0	200.0	ND
1/4/2012	810	480	53.0	10.0	94.0	1.7	110.0	57.0	200.0	ND
1/16/2012	-	-	-	-	-	-	-	-	-	ND
2/1/2012	830	510	57.0	11.0	93.0	2.1	120.0	58.0	220.0	ND
2/6/2012	-	-	-	-	-	-	-	-	-	ND
2/15/2012	810	450	52.0	10.0	88.0	1.7	120.0	55.0	210.0	ND
3/1/2012	760	460	62.0	13.0	87.0	1.8	120.0	57.0	230.0	0.2
3/19/2012	-	-	-	-	-	-	-	-	-	ND
4/16/2012	-	-	-	-	-	-	-	-	-	0.2
4/17/2012	-	-	-	-	-	-	-	-	-	0.3
5/2/2012	800	460	52.0	11.0	96.0	1.8	120.0	61.0	210.0	ND
5/14/2012	-	-	-	-	-	-	-	-	-	ND
6/4/2012	820	460	50.0	10.0	92.0	1.8	88.0	110.0	200.0	0.3
6/19/2012	-	-	-	-	-	-	-	-	-	ND
7/2/2012	830	510	54.0	11.0	93.0	1.7	120.0	55.0	210.0	0.2
7/17/2012	-	-	-	-	-	-	-	-	-	ND
7/25/2012	-	-	-	-	-	-	-	-	-	ND
8/1/2012	830	470	56.0	11.0	98.0	1.7	110.0	54.0	210.0	ND
8/13/2012	-	-	-	-	-	-	-	-	-	ND
9/10/2012	830	440	52.0	10.0	96.0	1.9	110.0	54.0	210.0	ND

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Murrieta Division

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9/17/2012	-	-	-	-	-	-	-	-	-	ND
10/1/2012	850	480	52.0	10.0	94.0	1.6	110.0	53.0	210.0	ND
10/15/2012	-	-	-	-	-	-	-	-	-	ND
11/5/2012	830	450	57.0	12.0	94.0	1.7	120.0	56.0	220.0	ND
11/19/2012	-	-	-	-	-	-	-	-	-	ND
11/27/2012	-	460	-	-	-	-	-	-	-	-
12/4/2012	870	480	61.0	12.0	94.0	1.5	120.0	61.0	230.0	0.2
12/17/2012	-	-	-	-	-	-	-	-	-	0.2
1/7/2013	860	510	63.0	13.0	98.0	1.7	110.0	58.0	220.0	ND
1/21/2013	-	-	-	-	-	-	-	-	-	ND
2/5/2013	860	490	60.0	12.0	92.0	2.1	120.0	61.0	230.0	ND
2/19/2013	-	-	-	-	-	-	-	-	-	ND
3/4/2013	850	520	63.0	12.0	96.0	1.6	120.0	61.0	230.0	ND
3/18/2013	-	-	-	-	-	-	-	-	-	ND
4/16/2013	-	-	-	-	-	-	-	-	-	ND
5/6/2013	870	470	61.0	13.0	90.0	1.6	120.0	60.0	230.0	ND
5/20/2013	-	-	-	-	-	-	-	-	-	ND
6/4/2013	990	470	63.0	12.0	98.0	1.8	120.0	61.0	230.0	ND
6/17/2013	-	-	-	-	-	-	-	-	-	ND
7/1/2013	870	470	64.0	13.0	98.0	1.7	110.0	58.0	230.0	ND
7/15/2013	-	-	-	-	-	-	-	-	-	ND
8/1/2013	880	510	61.0	12.0	98.0	1.6	120.0	62.0	230.0	0.2
8/19/2013	-	-	-	-	-	-	-	-	-	ND
9/4/2013	850	480	61.0	12.0	94.0	1.4	120.0	58.0	230.0	ND
9/16/2013	-	-	-	-	-	-	-	-	-	ND
10/1/2013	860	470	60.0	12.0	94.0	1.6	110.0	59.0	220.0	ND
10/14/2013	-	-	-	-	-	-	-	-	-	ND
11/4/2013	860	480	58.0	11.0	95.0	1.7	130.0	61.0	230.0	ND
11/18/2013	-	-	-	-	-	-	-	-	-	0.2
12/2/2013	880	490	65.0	13.0	99.0	1.8	120.0	60.0	230.0	0.3
12/16/2013	-	-	-	-	-	-	-	-	-	ND
1/7/2014	860	450	62.0	12.0	98.0	1.7	110.0	55.0	220.0	ND
1/21/2014	-	-	-	-	-	-	-	-	-	ND
2/10/2014	800	470	65.0	13.0	100.0	1.7	120.0	62.0	230.0	0.2
2/18/2014	-	-	-	-	-	-	-	-	-	0.3
3/17/2014	-	-	-	-	-	-	-	-	-	0.2
4/1/2014	820	480	59.0	11.0	99.0	1.6	120.0	64.0	230.0	ND
4/14/2014	-	-	-	-	-	-	-	-	-	ND
6/9/2014	-	-	-	-	-	-	-	-	-	ND
6/16/2014	880	490	65.0	13.0	100.0	1.7	120.0	60.0	240.0	0.3
7/7/2014	860	500	64.0	13.0	98.0	1.6	120.0	59.0	230.0	0.3
7/14/2014	-	-	-	-	-	-	-	-	-	ND
8/4/2014	890	-	64.0	13.0	100.0	1.7	120.0	61.0	230.0	0.3
8/18/2014	-	-	-	-	-	-	-	-	-	0.4
11/3/2014	-	-	-	-	-	-	-	-	-	ND
11/10/2014	-	-	-	-	-	-	-	-	-	ND
3/3/2015	960	520	67.0	13.0	100.0	1.9	120.0	63.0	230.0	ND
3/10/2015	-	-	-	-	-	-	-	-	-	ND
4/14/2015	-	-	-	-	-	-	-	-	-	ND
7/13/2015	-	-	-	-	-	-	-	-	-	ND
7/20/2015	-	-	-	-	-	-	-	-	-	ND
8/10/2015	880	540	63.0	13.0	94.0	1.6	130.0	64.0	240.0	ND
10/13/2015	880	440	-	-	-	-	120.0	62.0	230.0	ND
11/10/2015	890	520	69.0	14.0	100.0	1.7	130.0	68.0	230.0	ND
12/8/2015	880	500	64.0	13.0	95.0	1.6	120.0	60.0	240.0	ND
1/21/2016	900	490	66.0	13.0	95.0	1.7	120.0	62.0	230.0	0.2
4/12/2016	930	520	65.0	13.0	99.0	1.5	130.0	64.0	230.0	ND
5/10/2016	870	530	65.0	13.0	100.0	1.5	130.0	66.0	230.0	0.2
8/8/2016	940	510	67.0	13.0	98.0	1.6	120.0	63.0	230.0	0.2
10/28/2020	850	490	65.0	15.0	90.0	2.7	140.0	70.0	190.0	ND
4/8/2021	860	510	63.0	13.0	95.0	1.8	130.0	68.0	200.0	ND
4/26/2021	880	520	64.0	14.0	100.0	1.9	130.0	69.0	200.0	ND
5/4/2021	880	520	69.0	14.0	100.0	1.9	130.0	69.0	200.0	ND
5/11/2021	-	-	-	-	-	-	-	-	-	ND
6/1/2021	920	520	67.0	14.0	110.0	1.9	140.0	74.0	210.0	ND
6/8/2021	-	-	-	-	-	-	-	-	-	ND
7/12/2021	-	-	-	-	-	-	-	-	-	ND
8/10/2021	-	-	-	-	-	-	-	-	-	ND

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9/14/2021	-	-	-	-	-	-	-	-	-	ND
9/16/2021	900	520	71.0	15.0	100.0	1.9	130.0	71.0	200.0	ND
8/9/2022	830	520	72.0	16.0	99.0	1.9	140.0	69.0	220.0	ND
11/1/2022	860	540	70.0	16.0	100.0	1.9	140.0	74.0	230.0	ND
12/6/2022	830	530	70.0	16.0	100.0	2.0	140.0	75.0	220.0	ND
12/27/2022	-	-	-	-	-	-	-	-	-	ND
South Well										
9/7/1990	690	405	62.0	17.0	68.0	2.0	83.0	56.0	229.0	0.9
10/4/1991	-	-	-	-	-	-	-	-	-	0.5
11/1/1991	-	-	-	-	-	-	-	-	-	0.7
11/26/1991	-	-	-	-	-	-	-	-	-	0.5
5/15/1992	-	-	-	-	-	-	-	-	-	ND
10/1/1993	-	-	-	-	-	-	-	-	-	0.5
9/28/1994	-	-	-	-	-	-	-	-	-	0.2
12/21/1994	-	-	-	-	-	-	-	-	-	0.7
3/15/1995	-	-	-	-	-	-	-	-	-	0.5
6/7/1995	-	-	-	-	-	-	-	-	-	0.5
9/27/1995	-	-	-	-	-	-	-	-	-	0.5
12/20/1995	-	-	-	-	-	-	-	-	-	0.7
3/13/1996	-	-	-	-	-	-	-	-	-	0.5
6/15/1996	-	-	-	-	-	-	-	-	-	0.7
9/25/1996	-	-	-	-	-	-	-	-	-	0.7
12/18/1996	-	-	-	-	-	-	-	-	-	0.7
4/9/1997	-	-	-	-	-	-	-	-	-	0.5
6/4/1997	-	-	-	-	-	-	-	-	-	0.5
3/10/1998	-	-	-	-	-	-	-	-	-	0.5
3/11/1998	-	-	-	-	-	-	-	-	-	ND
4/8/1998	820	500	73.0	18.0	67.0	2.0	92.0	73.0	250.0	0.7
6/3/1998	-	-	-	-	-	-	-	-	-	0.7
10/1/1998	-	-	-	-	-	-	-	-	-	0.7
12/16/1998	-	-	-	-	-	-	-	-	-	0.5
6/9/1999	-	-	-	-	-	-	-	-	-	0.5
9/22/1999	-	-	-	-	-	-	-	-	-	ND
12/15/1999	-	-	-	-	-	-	-	-	-	ND
2/9/2000	810	460	55.0	14.0	84.0	1.0	99.0	63.0	210.0	ND
5/3/2000	-	-	-	-	-	-	-	-	-	ND
8/4/2000	780	440	47.0	9.0	100.0	ND	99.0	48.0	210.0	ND
8/23/2000	-	-	-	-	-	-	-	-	-	ND
10/24/2001	-	-	-	-	-	-	-	-	-	ND
3/20/2002	-	-	-	-	-	-	-	-	-	0.9
7/11/2002	-	460	-	-	-	-	-	-	180.0	-
10/3/2003	-	460	59.0	-	-	-	-	-	207.0	-
4/21/2004	-	-	-	-	-	-	-	-	-	ND
1/27/2005	-	610	110.0	28.0	-	-	-	-	300.0	-
3/30/2005	-	-	-	-	-	-	-	-	-	1.1
1/26/2006	800	440	42.0	9.1	110.0	1.2	120.0	65.0	-	0.3
4/12/2006	-	-	-	-	-	-	-	-	-	1.4
5/10/2006	-	-	-	-	-	-	-	-	-	0.4
6/14/2006	-	-	-	-	-	-	-	-	-	0.3
7/12/2006	-	-	-	-	-	-	-	-	-	ND
8/9/2006	-	-	-	-	-	-	-	-	-	0.3
9/13/2006	-	-	-	-	-	-	-	-	-	0.3
10/11/2006	-	-	-	-	-	-	-	-	-	0.3
11/8/2006	-	-	-	-	-	-	-	-	-	0.3
12/13/2006	-	-	-	-	-	-	-	-	-	0.3
1/10/2007	-	-	-	-	-	-	-	-	-	0.3
2/13/2007	-	-	-	-	-	-	-	-	-	1.2
3/14/2007	-	-	-	-	-	-	-	-	-	0.3
4/11/2007	-	-	-	-	-	-	-	-	-	ND
5/9/2007	-	-	-	-	-	-	-	-	-	ND
6/13/2007	-	-	-	-	-	-	-	-	-	0.3
7/11/2007	-	-	-	-	-	-	-	-	-	1.1
8/15/2007	800	480	40.0	8.5	100.0	ND	110.0	61.0	200.0	0.2
9/12/2007	-	-	-	-	-	-	-	-	-	1.3
11/14/2007	-	-	-	-	-	-	-	-	-	0.3
12/4/2007	-	-	-	-	-	-	-	-	-	0.3
1/24/2008	-	-	-	-	-	-	-	-	-	1.0

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-3
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Western Municipal Water District
Murrieta Division

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
3/26/2008	-	-	-	-	-	-	-	-	-	0.9
4/23/2008	-	-	-	-	-	-	-	-	-	0.9
6/9/2008	-	-	-	-	-	-	-	-	-	0.9
7/14/2008	-	-	-	-	-	-	-	-	-	1.2
9/8/2008	-	-	-	-	-	-	-	-	-	1.1
1/19/2009	-	-	-	-	-	-	-	-	-	1.5
11/13/2009	1,300	820	120.0	34.0	110.0	1.8	200.0	140.0	320.0	-
11/17/2009	-	-	-	-	-	-	-	-	-	1.3
11/9/2011	-	-	-	-	-	-	-	-	-	0.4
1/26/2012	-	-	-	-	-	-	-	-	-	0.3

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
No. 101										
6/1/1988	810	495	76.0	15.0	79.0	8.0	116.0	16.0	314.0	-
8/5/1988	-	-	-	-	-	-	-	-	-	ND
5/23/1990	630	365	30.0	6.0	91.0	2.0	101.0	35.0	107.0	0.68
8/4/1993	860	465	76.0	14.0	78.0	2.0	120.0	22.0	275.0	ND
8/9/1996	820	480	69.0	14.0	83.0	2.0	110.0	15.0	310.0	ND
10/16/1997	-	-	-	-	-	-	-	-	-	ND
8/11/1999	840	510	70.0	14.0	85.0	2.0	110.0	17.0	300.0	ND
6/25/2002	-	-	-	-	-	-	-	-	-	ND
8/14/2002	870	500	66.0	14.0	85.0	2.5	120.0	15.0	250.0	ND
6/11/2003	-	-	-	-	-	-	-	-	-	ND
6/15/2004	-	-	-	-	-	-	-	-	-	ND
6/14/2005	-	-	-	-	-	-	-	-	-	ND
8/9/2005	880	440	75.0	15.0	87.0	2.5	140.0	22.0	300.0	ND
6/7/2006	-	-	-	-	-	-	-	-	-	ND
6/1/2007	-	-	-	-	-	-	-	-	-	ND
6/3/2008	-	-	-	-	-	-	-	-	-	ND
8/11/2008	1,000	550	91.0	18.0	110.0	2.9	150.0	36.0	300.0	ND
9/9/2008	-	620	-	-	-	-	-	-	-	-
1/8/2009	-	840	-	-	-	-	-	-	-	-
6/25/2009	-	810	-	-	-	-	-	-	-	ND
3/24/2010	-	620	-	-	-	-	-	-	-	-
6/2/2010	-	670	-	-	-	-	-	-	-	ND
9/1/2011	-	620	-	-	-	-	-	-	-	-
12/9/2011	-	610	-	-	-	-	-	-	-	-
3/7/2012	-	650	-	-	-	-	-	-	-	-
6/12/2012	-	650	-	-	-	-	-	-	-	ND
9/13/2012	-	650	-	-	-	-	-	-	-	-
12/7/2012	-	690	-	-	-	-	-	-	-	-
3/6/2013	-	640	-	-	-	-	-	-	-	-
6/7/2013	-	640	-	-	-	-	-	-	-	ND
9/11/2013	1,100	700	95.0	19.0	110.0	2.8	180.0	43.0	310.0	ND
12/12/2013	-	690	-	-	-	-	-	-	-	-
3/14/2014	-	660	-	-	-	-	-	-	-	-
6/10/2014	1,300	710	93.0	18.0	120.0	3.0	200.0	49.0	320.0	-
6/19/2014	-	-	-	-	-	-	-	-	-	ND
9/17/2014	-	680	-	-	-	-	-	-	-	-
No. 102										
1/4/1989	695	370	9.0	2.0	134.0	1.0	101.0	25.0	195.0	ND
1/15/1992	930	615	38.0	4.0	160.0	3.0	160.0	55.0	250.0	ND
5/17/1995	850	475	21.0	1.0	144.0	1.0	120.0	130.0	98.0	ND
6/20/1995	1,190	700	26.0	2.0	207.0	2.0	150.0	220.0	131.0	ND
6/9/1997	-	-	-	-	-	-	-	-	-	ND
1/21/2019	-	-	-	-	-	-	-	-	-	ND
2/13/2019	950	550	37.0	1.5	160.0	1.2	140.0	150.0	110.0	ND
8/15/2019	940	560	48.0	5.8	140.0	2.3	140.0	150.0	120.0	ND
11/6/2019	960	560	44.0	1.7	160.0	1.6	140.0	140.0	120.0	ND
5/6/2020	970	560	42.0	1.8	160.0	ND	140.0	140.0	130.0	ND
2/2/2021	-	570	-	-	-	-	-	-	-	-
5/6/2021	-	-	-	-	-	-	-	-	-	ND
2/2/2022	-	570	-	-	-	-	-	-	-	-
5/18/2022	-	-	-	-	-	-	-	-	-	0.20
2/16/2023	-	710	-	-	-	-	-	-	-	-
5/3/2023	910	500	18.0	1.2	160.0	1.0	150.0	120.0	150.0	ND
No. 105										
7/6/1989	500	280	30.0	6.0	66.0	2.0	71.0	22.0	134.0	3.17
3/17/1993	480	310	17.0	2.0	80.0	2.0	67.0	22.0	110.0	3.17
No. 106										
6/29/1988	920	485	38.0	5.0	143.0	3.0	182.0	66.0	70.0	3.62
5/13/1992	880	515	35.0	4.0	142.0	2.0	180.0	72.0	110.0	3.85
5/16/1995	870	495	32.0	3.0	138.0	2.0	160.0	57.0	116.0	3.17
7/7/1997	-	-	-	-	-	-	-	-	-	1.81
7/20/1998	-	-	-	-	-	-	-	-	-	2.04
7/20/1999	-	-	-	-	-	-	-	-	-	2.04
7/6/2000	-	-	-	-	-	-	-	-	-	1.81

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
5/1/2001	490	300	7.0	ND	96.0	ND	70.0	23.0	100.0	1.81
7/10/2001	-	-	-	-	-	-	-	-	-	2.71
7/3/2002	-	-	-	-	-	-	-	-	-	1.81
7/7/2003	-	-	-	-	-	-	-	-	-	1.54
5/11/2004	530	310	9.0	ND	93.0	1.0	80.0	25.0	88.0	1.81
7/13/2004	-	-	-	-	-	-	-	-	-	1.81
7/7/2005	-	-	-	-	-	-	-	-	-	1.47
7/19/2006	-	-	-	-	-	-	-	-	-	1.38
5/2/2007	550	290	8.8	ND	91.0	ND	84.0	26.0	85.0	0.84
7/3/2007	-	-	-	-	-	-	-	-	-	1.36
7/7/2008	-	370	-	-	-	-	-	-	-	2.71
1/13/2009	-	440	-	-	-	-	-	-	-	-
4/16/2009	-	310	-	-	-	-	-	-	-	-
7/1/2009	-	340	-	-	-	-	-	-	-	1.54
3/18/2010	-	440	-	-	-	-	-	-	-	-
5/6/2010	720	410	23.0	1.6	120.0	1.5	130.0	57.0	100.0	2.71
6/2/2010	-	390	-	-	-	-	-	-	-	-
7/13/2010	-	-	-	-	-	-	-	-	-	0.45
9/1/2010	-	340	-	-	-	-	-	-	-	-
12/9/2010	-	410	-	-	-	-	-	-	-	-
4/15/2011	-	400	-	-	-	-	-	-	-	-
7/6/2011	-	300	-	-	-	-	-	-	-	1.36
10/4/2011	-	320	-	-	-	-	-	-	-	-
1/31/2012	-	430	-	-	-	-	-	-	-	-
4/9/2012	-	430	-	-	-	-	-	-	-	-
10/2/2012	-	380	-	-	-	-	-	-	-	-
1/17/2013	-	440	-	-	-	-	-	-	-	-
4/4/2013	-	360	-	-	-	-	-	-	-	-
5/1/2013	730	420	22.0	1.4	120.0	1.4	120.0	56.0	100.0	2.22
7/18/2013	-	400	-	-	-	-	-	-	-	2.49
10/1/2013	-	380	-	-	-	-	-	-	-	-
1/7/2014	-	360	-	-	-	-	-	-	-	-
4/7/2014	-	400	-	-	-	-	-	-	-	-
7/2/2014	-	320	-	-	-	-	-	-	-	1.33
10/1/2014	-	310	-	-	-	-	-	-	-	-
1/21/2015	-	640	-	-	-	-	-	-	-	-
4/22/2015	-	410	-	-	-	-	-	-	-	-
7/28/2015	-	390	-	-	-	-	-	-	-	2.26
10/12/2015	-	420	-	-	-	-	-	-	-	-
7/21/2016	-	440	-	-	-	-	-	-	-	2.40
7/25/2016	760	410	25.0	ND	120.0	1.6	120.0	61.0	100.0	2.40
10/11/2016	-	430	-	-	-	-	-	-	-	-
1/4/2017	-	400	-	-	-	-	-	-	-	-
4/3/2017	-	430	-	-	-	-	-	-	-	-
11/29/2017	-	-	-	-	-	-	-	-	-	2.50
5/24/2018	-	460	-	-	-	-	-	-	-	-
7/2/2018	-	460	-	-	-	-	-	-	-	2.70
10/26/2018	-	440	-	-	-	-	-	-	-	-
1/22/2019	-	450	-	-	-	-	-	-	-	-
4/2/2019	-	460	-	-	-	-	-	-	-	-
5/7/2019	830	470	32.0	2.2	130.0	1.8	140.0	80.0	96.0	2.60
7/1/2019	-	450	-	-	-	-	-	-	-	2.50
10/3/2019	-	430	-	-	-	-	-	-	-	-
6/10/2020	-	440	-	-	-	-	-	-	-	-
7/19/2020	-	450	-	-	-	-	-	-	-	2.70
10/1/2020	-	420	-	-	-	-	-	-	-	-
1/5/2021	-	400	-	-	-	-	-	-	-	-
7/8/2021	-	-	-	-	-	-	-	-	-	2.70
1/12/2022	-	320	-	-	-	-	-	-	-	-
5/3/2022	690	410	29.0	2.0	120.0	1.8	140.0	69.0	100.0	2.60
7/6/2022	-	-	-	-	-	-	-	-	-	1.70
1/13/2023	-	330	-	-	-	-	-	-	-	-
7/14/2023	-	-	-	-	-	-	-	-	-	2.60
No. 107										
4/11/1988	490	365	19.0	4.0	73.0	2.0	69.0	22.0	116.0	3.39
5/29/1991	950	535	63.0	15.0	104.0	3.0	130.0	120.0	171.0	2.49

NOTES:
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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
No. 108										
5/25/1988	780	455	51.0	11.0	96.0	2.0	120.0	68.0	153.0	3.17
5/29/1991	930	500	59.0	14.0	104.0	3.0	130.0	110.0	153.0	2.26
5/13/1994	640	395	23.0	5.0	100.0	2.0	120.0	51.0	104.0	1.58
5/16/1995	-	-	-	-	-	-	-	-	-	1.13
5/13/1997	540	300	7.0	ND	110.0	ND	110.0	15.0	85.0	0.90
5/5/1999	-	-	-	-	-	-	-	-	-	1.81
5/16/2000	630	350	7.0	ND	110.0	ND	130.0	12.0	65.0	0.68
5/2/2001	-	-	-	-	-	-	-	-	-	0.45
11/19/2002	-	-	-	-	-	-	-	-	-	0.45
4/14/2005	-	-	-	-	-	-	-	-	-	0.45
4/18/2006	-	-	-	-	-	-	-	-	-	0.23
5/12/2006	750	360	8.2	ND	140.0	ND	190.0	7.9	50.0	0.25
2/13/2008	-	-	-	-	-	-	-	-	-	0.32
8/6/2008	-	400	-	-	-	-	-	-	-	-
2/5/2009	-	340	-	-	-	-	-	-	-	0.50
5/8/2009	730	380	7.2	ND	130.0	ND	170.0	9.4	60.0	ND
8/5/2009	-	370	-	-	-	-	-	-	-	-
2/3/2010	-	-	-	-	-	-	-	-	-	0.68
5/6/2010	-	380	-	-	-	-	-	-	-	-
8/13/2010	-	350	-	-	-	-	-	-	-	-
11/3/2010	-	380	-	-	-	-	-	-	-	-
2/2/2011	-	350	-	-	-	-	-	-	-	0.45
5/5/2011	-	380	-	-	-	-	-	-	-	-
8/2/2011	-	400	-	-	-	-	-	-	-	-
11/1/2011	-	350	-	-	-	-	-	-	-	-
2/8/2012	-	350	-	-	-	-	-	-	-	ND
5/2/2012	700	380	7.2	ND	130.0	1.2	180.0	10.0	63.0	0.52
11/6/2012	-	350	-	-	-	-	-	-	-	-
2/7/2013	-	380	-	-	-	-	-	-	-	0.48
5/1/2013	-	350	-	-	-	-	-	-	-	-
8/13/2013	-	400	-	-	-	-	-	-	-	-
10/23/2013	-	390	-	-	-	-	-	-	-	-
10/31/2013	-	440	-	-	-	-	-	-	-	-
11/12/2013	-	340	-	-	-	-	-	-	-	-
2/4/2014	-	360	-	-	-	-	-	-	-	0.48
5/1/2014	-	480	-	-	-	-	-	-	-	-
8/5/2014	-	380	-	-	-	-	-	-	-	-
11/5/2014	-	400	-	-	-	-	-	-	-	-
2/6/2015	-	460	-	-	-	-	-	-	-	0.50
5/14/2015	760	410	7.7	ND	140.0	1.0	180.0	10.0	71.0	0.43
8/5/2015	-	390	-	-	-	-	-	-	-	-
11/5/2015	-	360	-	-	-	-	-	-	-	-
2/5/2016	-	400	-	-	-	-	-	-	-	0.45
5/12/2016	-	390	-	-	-	-	-	-	-	-
8/2/2016	-	420	-	-	-	-	-	-	-	-
11/8/2016	-	410	-	-	-	-	-	-	-	-
2/3/2017	-	410	-	-	-	-	-	-	-	0.42
5/3/2017	-	420	-	-	-	-	-	-	-	-
8/9/2017	-	400	-	-	-	-	-	-	-	-
11/2/2017	-	400	-	-	-	-	-	-	-	-
2/8/2018	-	400	-	-	-	-	-	-	-	0.51
5/18/2018	770	410	7.9	ND	140.0	1.2	190.0	11.0	61.0	0.51
8/16/2018	-	420	-	-	-	-	-	-	-	-
11/15/2018	-	410	-	-	-	-	-	-	-	-
2/19/2019	-	420	-	-	-	-	-	-	-	0.45
5/7/2019	-	410	-	-	-	-	-	-	-	-
8/20/2019	-	430	-	-	-	-	-	-	-	-
11/7/2019	-	410	-	-	-	-	-	-	-	-
2/6/2020	-	420	-	-	-	-	-	-	-	0.41
5/5/2020	-	420	-	-	-	-	-	-	-	-
8/19/2020	-	420	-	-	-	-	-	-	-	-
11/4/2020	-	410	-	-	-	-	-	-	-	-
2/3/2021	-	420	-	-	-	-	-	-	-	0.41
5/4/2021	820	480	24.0	5.1	140.0	1.5	170.0	54.0	93.0	1.70
2/8/2022	-	460	-	-	-	-	-	-	-	0.50
2/2/2023	-	420	-	-	-	-	-	-	-	1.20

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
No. 109										
6/1/1988	1,400	920	136.0	35.0	120.0	4.0	100.0	300.0	296.0	-
8/5/1988	-	-	-	-	-	-	-	-	-	2.26
6/12/1991	1,330	800	110.0	26.0	120.0	5.0	120.0	270.0	275.0	2.04
6/22/1994	1,370	1,010	138.0	32.0	124.0	5.0	140.0	320.0	287.0	1.58
6/6/1995	-	-	-	-	-	-	-	-	-	1.81
6/13/1997	1,440	1,010	130.0	31.0	140.0	4.0	140.0	330.0	280.0	2.26
7/16/1997	-	-	-	-	-	-	-	-	-	2.20
4/14/1999	-	-	-	-	-	-	-	-	-	2.71
4/11/2000	-	-	-	-	-	-	-	-	-	2.94
6/21/2000	1,330	870	120.0	28.0	130.0	4.0	120.0	280.0	270.0	0.72
4/10/2001	-	-	-	-	-	-	-	-	-	2.94
6/11/2003	1,400	970	140.0	32.0	130.0	4.0	130.0	340.0	290.0	2.71
6/19/2003	1,400	970	150.0	32.0	120.0	4.2	130.0	340.0	290.0	2.71
1/7/2004	-	-	-	-	-	-	-	-	-	2.94
1/11/2005	-	-	-	-	-	-	-	-	-	2.94
1/4/2006	-	-	-	-	-	-	-	-	-	2.71
7/12/2006	1,300	930	130.0	30.0	130.0	4.8	130.0	280.0	280.0	2.71
1/10/2007	-	-	-	-	-	-	-	-	-	2.94
1/4/2008	-	-	-	-	-	-	-	-	-	2.94
7/7/2008	-	810	-	-	-	-	-	-	-	-
1/13/2009	-	860	-	-	-	-	-	-	-	3.62
4/2/2009	-	810	-	-	-	-	-	-	-	-
7/6/2009	-	770	-	-	-	-	-	-	-	-
1/5/2010	-	-	-	-	-	-	-	-	-	3.17
4/7/2010	-	930	-	-	-	-	-	-	-	-
7/1/2010	-	1,000	-	-	-	-	-	-	-	-
10/6/2010	-	830	-	-	-	-	-	-	-	-
1/12/2011	-	920	-	-	-	-	-	-	-	3.17
1/25/2012	-	880	-	-	-	-	-	-	-	2.71
4/3/2012	-	910	-	-	-	-	-	-	-	-
10/2/2012	-	880	-	-	-	-	-	-	-	-
1/17/2013	-	950	-	-	-	-	-	-	-	2.71
4/3/2013	-	830	-	-	-	-	-	-	-	-
7/2/2013	-	910	-	-	-	-	-	-	-	-
10/3/2013	-	770	-	-	-	-	-	-	-	-
1/9/2014	-	710	-	-	-	-	-	-	-	3.17
4/9/2014	-	800	-	-	-	-	-	-	-	-
7/9/2014	-	770	-	-	-	-	-	-	-	-
10/1/2014	-	750	-	-	-	-	-	-	-	-
1/8/2015	-	900	-	-	-	-	-	-	-	2.94
4/8/2015	-	740	-	-	-	-	-	-	-	-
7/2/2015	-	740	-	-	-	-	-	-	-	-
7/7/2015	1,100	670	110.0	23.0	110.0	3.6	110.0	180.0	270.0	3.17
10/6/2015	-	770	-	-	-	-	-	-	-	-
1/12/2016	-	910	-	-	-	-	-	-	-	2.80
4/5/2016	-	780	-	-	-	-	-	-	-	-
7/13/2016	-	800	-	-	-	-	-	-	-	-
10/4/2016	-	750	-	-	-	-	-	-	-	-
10/11/2016	1,400	890	130.0	31.0	130.0	4.3	130.0	240.0	310.0	2.70
1/4/2017	-	710	-	-	-	-	-	-	-	3.80
4/11/2017	-	830	-	-	-	-	-	-	-	-
7/5/2017	-	710	-	-	-	-	-	-	-	-
10/4/2017	-	760	-	-	-	-	-	-	-	-
1/5/2018	-	960	-	-	-	-	-	-	-	2.60
4/11/2018	-	730	-	-	-	-	-	-	-	-
7/18/2018	1,100	700	98.0	18.0	100.0	3.5	120.0	170.0	230.0	4.10
10/11/2018	-	710	-	-	-	-	-	-	-	-
1/15/2019	-	890	-	-	-	-	-	-	-	3.00
4/3/2019	-	710	-	-	-	-	-	-	-	-
7/11/2019	-	680	-	-	-	-	-	-	-	-
10/2/2019	-	630	-	-	-	-	-	-	-	-
1/2/2020	-	720	-	-	-	-	-	-	-	3.60
4/1/2020	-	860	-	-	-	-	-	-	-	-
7/14/2020	-	660	-	-	-	-	-	-	-	-
10/1/2020	-	650	-	-	-	-	-	-	-	-
2/26/2021	-	890	-	-	-	-	-	-	-	2.60
7/7/2021	1,000	740	100.0	20.0	110.0	3.7	120.0	160.0	220.0	3.90

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
11/17/2021	1,000	650	94.0	20.0	110.0	4.1	120.0	170.0	200.0	3.70
1/11/2022	-	730	-	-	-	-	-	-	-	2.10
1/9/2023	-	1,500	-	-	-	-	-	-	-	1.60
2/2/2023	-	680	-	-	-	-	-	-	-	-
No. 110										
3/31/1988	1,100	630	70.0	23.0	132.0	6.0	115.0	163.0	268.0	0.68
3/11/1993	1,010	610	60.0	21.0	124.0	5.0	110.0	200.0	201.0	0.68
4/27/1995	-	-	-	-	-	-	-	-	-	0.23
7/20/1999	-	-	-	-	-	-	-	-	-	ND
7/6/2000	-	-	-	-	-	-	-	-	-	0.45
7/10/2001	-	-	-	-	-	-	-	-	-	0.45
3/11/2002	850	500	58.0	20.0	81.0	5.0	74.0	190.0	160.0	ND
7/3/2002	-	-	-	-	-	-	-	-	-	ND
9/16/2003	-	-	-	-	-	-	-	-	-	0.45
9/1/2004	-	-	-	-	-	-	-	-	-	0.45
3/2/2005	810	510	56.0	21.0	79.0	4.9	76.0	170.0	150.0	ND
9/7/2005	-	-	-	-	-	-	-	-	-	0.41
9/6/2007	-	-	-	-	-	-	-	-	-	0.45
3/4/2008	980	560	59.0	21.0	95.0	4.6	110.0	160.0	190.0	0.57
1/20/2009	-	610	-	-	-	-	-	-	-	-
4/2/2009	-	550	-	-	-	-	-	-	-	-
7/9/2009	-	560	-	-	-	-	-	-	-	-
1/6/2010	-	560	-	-	-	-	-	-	-	-
4/7/2010	-	630	-	-	-	-	-	-	-	-
7/1/2010	-	730	-	-	-	-	-	-	-	-
9/1/2010	-	-	-	-	-	-	-	-	-	ND
10/7/2010	-	600	-	-	-	-	-	-	-	-
1/12/2011	-	520	-	-	-	-	-	-	-	-
4/5/2011	-	560	-	-	-	-	-	-	-	-
7/6/2011	-	530	-	-	-	-	-	-	-	-
9/2/2011	-	-	-	-	-	-	-	-	-	0.86
10/13/2011	-	470	-	-	-	-	-	-	-	-
2/16/2012	-	440	-	-	-	-	-	-	-	-
4/4/2012	-	400	-	-	-	-	-	-	-	-
9/5/2012	-	-	-	-	-	-	-	-	-	0.34
10/9/2012	-	380	-	-	-	-	-	-	-	-
1/9/2013	-	420	-	-	-	-	-	-	-	-
4/8/2013	-	420	-	-	-	-	-	-	-	-
7/9/2013	-	450	-	-	-	-	-	-	-	-
10/14/2015	970	610	70.0	26.0	89.0	4.6	91.0	210.0	160.0	ND
1/20/2016	1,300	810	100.0	36.0	120.0	6.5	180.0	200.0	280.0	0.50
4/14/2016	1,200	710	74.0	26.0	140.0	5.0	130.0	210.0	230.0	0.44
7/27/2016	1,100	690	64.0	24.0	120.0	4.8	99.0	230.0	180.0	0.26
3/23/2017	1,000	620	75.0	25.0	97.0	5.0	96.0	210.0	160.0	0.25
4/12/2017	960	610	73.0	25.0	98.0	5.1	98.0	220.0	140.0	0.24
7/13/2017	590	340	37.0	12.0	65.0	3.3	56.0	97.0	120.0	ND
No. 113										
3/28/1988	700	400	41.0	12.0	87.0	2.0	11.0	20.0	192.0	4.07
3/21/1991	570	290	21.0	5.0	79.0	2.0	88.0	17.0	119.0	2.49
3/3/1994	700	410	46.0	13.0	86.0	2.0	120.0	25.0	189.0	4.30
4/27/1995	-	-	-	-	-	-	-	-	-	5.43
3/20/1997	880	500	53.0	15.0	96.0	2.0	140.0	33.0	200.0	4.98
7/20/1998	-	-	-	-	-	-	-	-	-	5.20
9/16/1998	-	-	-	-	-	-	-	-	-	4.98
2/25/1999	-	-	-	-	-	-	-	-	-	4.30
4/14/1999	-	-	-	-	-	-	-	-	-	3.85
6/3/1999	-	-	-	-	-	-	-	-	-	4.75
9/14/1999	-	-	-	-	-	-	-	-	-	4.98
10/21/1999	-	-	-	-	-	-	-	-	-	5.66
11/2/1999	-	-	-	-	-	-	-	-	-	4.98
12/14/1999	-	-	-	-	-	-	-	-	-	5.20
1/11/2000	-	-	-	-	-	-	-	-	-	4.07
3/7/2000	810	470	75.0	16.0	59.0	2.0	70.0	94.0	200.0	2.49
4/11/2000	-	-	-	-	-	-	-	-	-	5.20
5/3/2000	-	-	-	-	-	-	-	-	-	5.43
6/21/2000	-	-	-	-	-	-	-	-	-	5.20

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Water Quality Data

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
9/13/2000	-	-	-	-	-	-	-	-	-	5.20
10/6/2000	-	-	-	-	-	-	-	-	-	4.75
2/14/2001	-	-	-	-	-	-	-	-	-	3.62
5/30/2001	-	-	-	-	-	-	-	-	-	5.20
6/12/2001	-	-	-	-	-	-	-	-	-	4.98
8/1/2001	-	-	-	-	-	-	-	-	-	4.98
11/13/2001	-	-	-	-	-	-	-	-	-	4.98
5/1/2002	-	-	-	-	-	-	-	-	-	4.30
8/6/2002	-	-	-	-	-	-	-	-	-	4.52
11/5/2002	-	-	-	-	-	-	-	-	-	4.75
2/7/2003	-	-	-	-	-	-	-	-	-	4.98
3/5/2003	1,000	610	65.0	19.0	110.0	2.5	160.0	41.0	260.0	5.88
8/5/2003	-	-	-	-	-	-	-	-	-	4.75
11/13/2003	-	-	-	-	-	-	-	-	-	5.43
2/10/2004	-	-	-	-	-	-	-	-	-	5.43
5/4/2004	-	-	-	-	-	-	-	-	-	5.20
8/10/2004	-	-	-	-	-	-	-	-	-	5.43
11/17/2004	-	-	-	-	-	-	-	-	-	5.66
2/9/2005	-	-	-	-	-	-	-	-	-	5.66
5/12/2005	-	-	-	-	-	-	-	-	-	5.20
11/2/2005	-	-	-	-	-	-	-	-	-	5.66
2/14/2006	-	-	-	-	-	-	-	-	-	5.43
3/8/2006	880	540	54.0	15.0	100.0	2.3	140.0	31.0	210.0	5.43
5/11/2006	-	-	-	-	-	-	-	-	-	5.43
8/3/2006	-	-	-	-	-	-	-	-	-	4.75
11/8/2006	-	-	-	-	-	-	-	-	-	5.20
2/7/2007	-	-	-	-	-	-	-	-	-	5.43
5/1/2007	-	-	-	-	-	-	-	-	-	5.20
8/7/2007	-	-	-	-	-	-	-	-	-	5.20
2/12/2008	-	-	-	-	-	-	-	-	-	4.98
5/6/2008	-	540	-	-	-	-	-	-	-	4.75
8/11/2008	-	530	-	-	-	-	-	-	-	4.75
11/6/2008	-	570	-	-	-	-	-	-	-	5.43
2/5/2009	-	530	-	-	-	-	-	-	-	4.75
3/3/2009	930	520	56.0	15.0	97.0	2.1	150.0	41.0	210.0	4.98
5/11/2009	-	-	-	-	-	-	-	-	-	4.30
8/4/2009	-	520	-	-	-	-	-	-	-	4.52
2/2/2010	-	510	-	-	-	-	-	-	-	4.98
5/7/2010	-	600	-	-	-	-	-	-	-	4.98
8/10/2010	-	540	-	-	-	-	-	-	-	4.98
11/3/2010	-	520	-	-	-	-	-	-	-	4.75
2/15/2011	-	550	-	-	-	-	-	-	-	4.52
5/4/2011	-	550	-	-	-	-	-	-	-	4.52
8/3/2011	-	540	-	-	-	-	-	-	-	4.52
11/2/2011	-	540	-	-	-	-	-	-	-	4.75
2/2/2012	-	580	-	-	-	-	-	-	-	4.75
5/3/2012	-	570	-	-	-	-	-	-	-	4.52
8/9/2012	-	-	-	-	-	-	-	-	-	4.52
11/2/2012	-	600	-	-	-	-	-	-	-	4.75
2/12/2013	-	550	-	-	-	-	-	-	-	4.98
5/14/2013	-	570	-	-	-	-	-	-	-	4.52
8/14/2013	-	540	-	-	-	-	-	-	-	4.52
11/6/2013	-	520	-	-	-	-	-	-	-	4.75
2/7/2014	-	480	-	-	-	-	-	-	-	4.52
4/21/2015	990	550	61.0	17.0	110.0	2.5	150.0	47.0	200.0	4.75
5/19/2015	-	580	-	-	-	-	-	-	-	4.98
8/4/2015	-	550	-	-	-	-	-	-	-	4.75
11/10/2015	-	560	-	-	-	-	-	-	-	4.75
2/17/2016	-	530	-	-	-	-	-	-	-	4.70
5/15/2016	-	540	-	-	-	-	-	-	-	4.50
8/2/2016	-	550	-	-	-	-	-	-	-	4.40
11/2/2016	-	560	-	-	-	-	-	-	-	4.90
2/14/2017	-	530	-	-	-	-	-	-	-	4.10
5/10/2017	-	560	-	-	-	-	-	-	-	5.00
8/16/2017	-	540	-	-	-	-	-	-	-	5.20
11/9/2017	-	550	-	-	-	-	-	-	-	4.70
2/15/2018	-	520	-	-	-	-	-	-	-	5.00
3/15/2018	990	560	65.0	18.0	110.0	2.6	160.0	49.0	180.0	5.10

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5/22/2018	-	560	-	-	-	-	-	-	-	5.10
8/28/2018	-	560	-	-	-	-	-	-	-	5.20
11/7/2018	-	540	-	-	-	-	-	-	-	5.50
2/12/2019	-	550	-	-	-	-	-	-	-	5.20
5/2/2019	-	560	-	-	-	-	-	-	-	5.50
8/20/2019	-	550	-	-	-	-	-	-	-	5.30
11/7/2019	-	530	-	-	-	-	-	-	-	5.20
2/13/2020	-	440	-	-	-	-	-	-	-	4.40
5/14/2020	-	470	-	-	-	-	-	-	-	4.90
8/13/2020	-	560	-	-	-	-	-	-	-	5.50
11/4/2020	-	540	-	-	-	-	-	-	-	5.10
2/10/2021	-	-	-	-	-	-	-	-	-	5.40
3/3/2021	1,100	610	80.0	22.0	120.0	2.7	160.0	48.0	210.0	5.30
5/7/2021	-	-	-	-	-	-	-	-	-	4.90
8/5/2021	-	-	-	-	-	-	-	-	-	5.50
11/3/2021	-	-	-	-	-	-	-	-	-	5.70
2/8/2022	-	-	-	-	-	-	-	-	-	5.50
3/15/2022	-	530	-	-	-	-	-	-	-	-
5/10/2022	-	-	-	-	-	-	-	-	-	5.80
8/4/2022	-	-	-	-	-	-	-	-	-	5.70
7/19/2023	-	500	-	-	-	-	-	-	-	5.00
8/1/2023	-	-	-	-	-	-	-	-	-	5.30
No. 118										
8/8/1990	715	480	14.0	1.0	162.0	1.0	120.0	79.0	101.0	0.23
9/26/1990	-	-	-	-	-	-	-	-	-	0.23
9/10/1993	860	525	19.0	1.0	178.0	1.0	130.0	94.0	198.0	ND
6/20/1995	-	-	-	-	-	-	-	-	-	ND
9/16/1996	970	560	33.0	2.0	180.0	2.0	120.0	120.0	230.0	ND
7/23/1997	-	-	-	-	-	-	-	-	-	0.20
9/16/1998	-	-	-	-	-	-	-	-	-	0.45
11/2/1999	1,040	580	46.0	4.0	170.0	2.0	130.0	100.0	240.0	ND
9/20/2000	-	-	-	-	-	-	-	-	-	ND
8/18/2002	-	-	-	-	-	-	-	-	-	ND
11/8/2002	1,100	590	46.0	4.5	160.0	1.3	140.0	94.0	240.0	ND
9/23/2003	-	-	-	-	-	-	-	-	-	ND
12/30/2004	-	-	-	-	-	-	-	-	-	ND
1/25/2005	-	-	-	-	-	-	-	-	-	ND
9/7/2005	-	-	-	-	-	-	-	-	-	ND
11/3/2005	980	590	55.0	5.1	150.0	1.7	140.0	110.0	240.0	ND
9/5/2007	-	-	-	-	-	-	-	-	-	0.25
9/8/2008	-	670	-	-	-	-	-	-	-	ND
11/6/2008	1,100	640	71.0	150.0	150.0	1.9	150.0	140.0	250.0	ND
12/5/2008	-	660	-	-	-	-	-	-	-	-
3/3/2009	-	620	-	-	-	-	-	-	-	-
6/4/2009	-	610	-	-	-	-	-	-	-	-
3/3/2010	-	640	-	-	-	-	-	-	-	-
6/2/2010	-	630	-	-	-	-	-	-	-	-
9/2/2010	-	640	-	-	-	-	-	-	-	0.50
12/8/2010	-	640	-	-	-	-	-	-	-	-
3/2/2011	-	650	-	-	-	-	-	-	-	-
6/8/2011	-	640	-	-	-	-	-	-	-	-
9/2/2011	-	620	-	-	-	-	-	-	-	0.45
12/6/2011	-	610	-	-	-	-	-	-	-	-
6/12/2012	-	640	-	-	-	-	-	-	-	-
11/14/2012	1,100	680	70.0	7.2	150.0	2.0	140.0	130.0	250.0	0.25
12/5/2012	-	610	-	-	-	-	-	-	-	-
3/6/2013	-	610	-	-	-	-	-	-	-	-
9/17/2013	-	600	-	-	-	-	-	-	-	ND
12/10/2013	-	640	-	-	-	-	-	-	-	-
3/12/2014	-	600	-	-	-	-	-	-	-	-
6/5/2014	-	630	-	-	-	-	-	-	-	-
9/3/2014	-	620	-	-	-	-	-	-	-	ND
No. 119										
7/16/1996	450	280	44.0	9.0	35.0	ND	39.0	18.0	180.0	3.39
8/14/1997	-	-	-	-	-	-	-	-	-	2.71
12/24/1997	-	320	-	-	-	-	-	-	-	3.10

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3/4/1998	-	380	-	-	-	-	-	-	-	3.30
6/4/1998	-	-	-	-	-	-	-	-	-	3.80
6/12/1998	-	400	-	-	-	-	-	-	-	-
9/16/1998	-	-	-	-	-	-	-	-	-	3.70
1/8/1999	-	430	-	-	-	-	-	-	-	-
4/13/1999	-	-	-	-	-	-	-	-	-	6.33
6/2/1999	-	560	-	-	-	-	-	-	-	4.80
7/27/1999	940	640	103.0	21.0	58.0	1.0	70.0	150.0	264.0	6.79
9/14/1999	-	-	-	-	-	-	-	-	-	4.98
10/26/1999	-	-	-	-	-	-	-	-	-	5.43
11/2/1999	-	-	-	-	-	-	-	-	-	4.98
12/14/1999	-	560	-	-	-	-	-	-	-	4.98
4/4/2000	-	-	-	-	-	-	-	-	-	4.52
12/14/2000	-	-	-	-	-	-	-	-	-	4.60
3/29/2001	-	-	-	-	-	-	-	-	-	4.52
6/20/2001	-	-	-	-	-	-	-	-	-	4.20
9/14/2001	-	-	-	-	-	-	-	-	-	4.20
9/28/2001	-	-	-	-	-	-	-	-	-	4.07
11/16/2001	-	-	-	-	-	-	-	-	-	3.62
5/23/2002	-	480	-	-	-	-	-	-	-	4.07
7/24/2002	770	490	81.0	15.0	49.0	1.1	51.0	90.0	240.0	4.30
11/8/2002	-	-	-	-	-	-	-	-	-	3.39
2/19/2003	-	-	-	-	-	-	-	-	-	3.85
2/10/2004	-	-	-	-	-	-	-	-	-	3.39
2/28/2005	-	-	-	-	-	-	-	-	-	2.26
7/6/2005	820	600	95.0	20.0	63.0	1.4	64.0	140.0	260.0	2.94
2/7/2006	-	-	-	-	-	-	-	-	-	3.39
2/7/2007	-	-	-	-	-	-	-	-	-	3.39
2/12/2008	-	-	-	-	-	-	-	-	-	3.39
5/14/2008	-	520	-	-	-	-	-	-	-	2.94
7/8/2008	810	520	88.0	17.0	57.0	1.4	66.0	120.0	250.0	3.17
8/11/2008	-	480	-	-	-	-	-	-	-	2.94
11/17/2008	-	520	-	-	-	-	-	-	-	3.62
2/5/2009	-	460	-	-	-	-	-	-	-	2.94
5/11/2009	-	560	-	-	-	-	-	-	-	2.71
8/4/2009	-	540	-	-	-	-	-	-	-	3.17
1/12/2010	-	580	-	-	-	-	-	-	-	3.39
4/9/2010	-	560	-	-	-	-	-	-	-	2.94
7/1/2010	-	620	-	-	-	-	-	-	-	3.17
10/7/2010	-	610	-	-	-	-	-	-	-	3.17
1/12/2011	-	480	-	-	-	-	-	-	-	2.94
4/12/2011	-	560	-	-	-	-	-	-	-	2.71
7/7/2011	840	560	85.0	18.0	60.0	1.9	84.0	120.0	250.0	3.62
10/13/2011	-	610	-	-	-	-	-	-	-	3.39
1/10/2012	-	520	-	-	-	-	-	-	-	3.17
4/3/2012	-	550	-	-	-	-	-	-	-	-
10/4/2012	-	550	-	-	-	-	-	-	-	3.39
1/16/2013	-	530	-	-	-	-	-	-	-	3.85
4/12/2013	-	540	-	-	-	-	-	-	-	4.07
7/3/2013	-	540	-	-	-	-	-	-	-	3.62
10/3/2013	-	500	-	-	-	-	-	-	-	3.85
1/28/2014	-	600	-	-	-	-	-	-	-	4.75
4/16/2014	-	540	-	-	-	-	-	-	-	4.75
7/10/2014	860	560	90.0	18.0	60.0	1.2	73.0	110.0	260.0	4.07
10/2/2014	-	600	-	-	-	-	-	-	-	4.07
1/20/2015	-	540	-	-	-	-	-	-	-	4.30
4/14/2015	-	710	-	-	-	-	-	-	-	3.85
7/7/2015	-	600	-	-	-	-	-	-	-	3.85
10/8/2015	-	550	-	-	-	-	-	-	-	4.52
1/12/2016	-	610	-	-	-	-	-	-	-	4.90
4/21/2016	-	620	-	-	-	-	-	-	-	5.10
7/13/2016	-	610	-	-	-	-	-	-	-	4.20
10/5/2016	-	590	-	-	-	-	-	-	-	4.20
1/26/2017	-	590	-	-	-	-	-	-	-	4.30
4/11/2017	-	620	-	-	-	-	-	-	-	4.90
7/11/2017	970	650	110.0	21.0	64.0	1.5	82.0	130.0	230.0	5.30
10/19/2017	-	670	-	-	-	-	-	-	-	5.50
1/17/2018	-	690	-	-	-	-	-	-	-	5.40

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
4/13/2018	-	730	-	-	-	-	-	-	-	5.60
7/11/2018	-	770	-	-	-	-	-	-	-	6.00
10/5/2018	-	780	-	-	-	-	-	-	-	6.10
1/8/2019	-	760	-	-	-	-	-	-	-	5.80
4/29/2019	-	760	-	-	-	-	-	-	-	5.70
7/24/2019	-	830	-	-	-	-	-	-	-	6.50
10/9/2019	-	650	-	-	-	-	-	-	-	4.40
1/15/2020	-	590	-	-	-	-	-	-	-	3.80
8/26/2020	960	630	110.0	22.0	68.0	1.7	90.0	140.0	240.0	4.60
10/14/2020	-	620	-	-	-	-	-	-	-	1.30
1/14/2021	-	620	-	-	-	-	-	-	-	4.80
4/6/2021	-	-	-	-	-	-	-	-	-	5.20
10/5/2021	-	-	-	-	-	-	-	-	-	4.50
1/11/2022	-	600	-	-	-	-	-	-	-	5.90
4/13/2022	-	-	-	-	-	-	-	-	-	5.40
7/13/2022	-	-	-	-	-	-	-	-	-	5.80
10/13/2022	-	-	-	-	-	-	-	-	-	5.60
1/13/2023	-	630	-	-	-	-	-	-	-	5.30
4/12/2023	-	-	-	-	-	-	-	-	-	5.90
7/5/2023	940	590	99.0	21.0	63.0	1.5	84.0	130.0	260.0	4.70
No. 120										
6/20/1990	570	330	6.0	1.0	116.0	1.0	82.0	31.0	113.0	2.49
6/10/1993	590	340	6.0	ND	122.0	1.0	85.0	35.0	104.0	2.71
7/19/1996	630	360	6.0	ND	120.0	1.0	88.0	42.0	120.0	3.17
6/16/1997	-	-	-	-	-	-	-	-	-	2.26
8/14/1997	-	-	-	-	-	-	-	-	-	2.04
6/2/1999	620	360	6.0	ND	122.0	ND	84.0	45.0	120.0	2.26
6/6/2000	-	-	-	-	-	-	-	-	-	2.49
6/13/2001	-	-	-	-	-	-	-	-	-	2.71
6/1/2002	670	370	8.1	ND	130.0	1.0	86.0	46.0	130.0	2.49
6/11/2003	-	-	-	-	-	-	-	-	-	2.71
6/22/2004	-	-	-	-	-	-	-	-	-	3.39
6/15/2005	720	410	11.0	ND	140.0	1.3	90.0	62.0	140.0	2.71
6/7/2006	-	-	-	-	-	-	-	-	-	2.49
6/1/2007	-	-	-	-	-	-	-	-	-	2.26
6/5/2008	690	400	11.0	ND	140.0	104.0	89.0	66.0	140.0	2.26
9/15/2008	-	350	-	-	-	-	-	-	-	-
8/21/2009	-	500	-	-	-	-	-	-	-	2.49
2/2/2010	-	440	-	-	-	-	-	-	-	-
5/5/2010	-	440	-	-	-	-	-	-	-	-
8/9/2010	-	430	-	-	-	-	-	-	-	2.49
11/3/2010	-	400	-	-	-	-	-	-	-	-
2/2/2011	-	440	-	-	-	-	-	-	-	-
5/4/2011	-	450	-	-	-	-	-	-	-	-
8/2/2011	-	420	-	-	-	-	-	-	-	2.26
11/3/2011	-	380	-	-	-	-	-	-	-	-
2/7/2012	-	430	-	-	-	-	-	-	-	-
5/3/2012	-	410	-	-	-	-	-	-	-	-
8/9/2012	-	400	-	-	-	-	-	-	-	2.26
11/1/2012	-	440	-	-	-	-	-	-	-	-
2/7/2013	-	810	-	-	-	-	-	-	-	-
5/2/2013	-	410	-	-	-	-	-	-	-	-
8/19/2013	-	460	-	-	-	-	-	-	-	2.71
11/7/2013	-	450	-	-	-	-	-	-	-	-
2/4/2014	-	430	-	-	-	-	-	-	-	-
5/6/2014	-	420	-	-	-	-	-	-	-	-
6/3/2014	820	600	22.0	1.6	150.0	1.7	98.0	100.0	150.0	3.62
8/8/2014	-	410	-	-	-	-	-	-	-	2.94
11/5/2014	-	460	-	-	-	-	-	-	-	-
2/4/2015	-	350	-	-	-	-	-	-	-	-
5/7/2015	-	480	-	-	-	-	-	-	-	-
8/6/2015	-	450	-	-	-	-	-	-	-	2.71
2/10/2016	-	520	-	-	-	-	-	-	-	-
5/10/2016	-	450	-	-	-	-	-	-	-	-
8/3/2016	-	540	-	-	-	-	-	-	-	2.80
11/8/2016	-	460	-	-	-	-	-	-	-	-
11/10/2016	-	440	-	-	-	-	-	-	-	-

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2/2/2017	-	420	-	-	-	-	-	-	-	-
5/2/2017	-	430	-	-	-	-	-	-	-	-
6/7/2017	750	400	18.0	1.2	130.0	1.6	92.0	80.0	110.0	2.60
8/4/2017	-	440	-	-	-	-	-	-	-	2.70
11/8/2017	-	450	-	-	-	-	-	-	-	-
2/27/2018	-	520	-	-	-	-	-	-	-	-
5/22/2018	-	470	-	-	-	-	-	-	-	-
8/15/2018	-	470	-	-	-	-	-	-	-	2.70
7/23/2019	-	530	-	-	-	-	-	-	-	-
8/14/2019	-	510	-	-	-	-	-	-	-	3.20
11/14/2019	-	450	-	-	-	-	-	-	-	-
2/6/2020	-	570	-	-	-	-	-	-	-	-
5/7/2020	-	480	-	-	-	-	-	-	-	-
6/2/2020	800	460	25.0	1.7	140.0	1.8	100.0	110.0	140.0	2.70
8/13/2020	-	440	-	-	-	-	-	-	-	2.80
11/17/2020	-	510	-	-	-	-	-	-	-	-
2/3/2021	-	440	-	-	-	-	-	-	-	-
8/6/2021	-	-	-	-	-	-	-	-	-	2.90
2/3/2022	-	580	-	-	-	-	-	-	-	-
8/4/2022	-	-	-	-	-	-	-	-	-	2.80
2/16/2023	-	490	-	-	-	-	-	-	-	-
6/6/2023	790	440	23.0	1.7	130.0	1.6	99.0	91.0	170.0	2.70
8/3/2023	-	-	-	-	-	-	-	-	-	3.00
No. 121										
10/27/1989	900	475	63.0	14.0	99.0	2.0	109.0	28.0	290.0	ND
5/19/1992	1,000	560	72.0	17.0	120.0	3.0	170.0	56.0	270.0	ND
7/18/1997	-	-	-	-	-	-	-	-	-	ND
7/24/1997	-	640	-	-	-	-	-	-	-	ND
8/20/1997	-	-	-	-	-	-	-	-	-	ND
9/3/1997	-	-	-	-	-	-	-	-	-	ND
6/19/2002	-	-	-	-	-	-	-	-	-	ND
No. 122										
6/23/1997	-	-	-	-	-	-	-	-	-	1.36
7/25/1997	660	460	64.0	13.0	44.0	1.0	61.0	65.0	190.0	1.81
10/10/1997	-	-	-	-	-	-	-	-	-	2.04
12/23/1997	-	400	-	-	-	-	-	-	-	1.80
3/25/1998	-	450	-	-	-	-	-	-	-	2.20
6/3/1998	-	-	-	-	-	-	-	-	-	2.40
6/5/1998	-	460	-	-	-	-	-	-	-	-
9/17/1998	-	-	-	-	-	-	-	-	-	2.20
1/8/1999	-	450	-	-	-	-	-	-	-	-
4/13/1999	-	-	-	-	-	-	-	-	-	2.04
6/3/1999	-	470	-	-	-	-	-	-	-	2.10
9/21/1999	-	-	-	-	-	-	-	-	-	2.10
3/7/2000	-	-	-	-	-	-	-	-	-	3.62
4/4/2000	-	-	-	-	-	-	-	-	-	2.04
6/28/2000	780	470	79.0	16.0	62.0	1.0	73.0	100.0	210.0	2.49
12/13/2000	-	-	-	-	-	-	-	-	-	2.50
3/27/2001	-	-	-	-	-	-	-	-	-	2.50
4/18/2001	-	-	-	-	-	-	-	-	-	2.26
6/20/2001	-	-	-	-	-	-	-	-	-	2.40
9/13/2001	-	-	-	-	-	-	-	-	-	2.70
12/13/2001	-	550	-	-	-	-	-	-	-	-
5/14/2002	-	570	-	-	-	-	-	-	-	2.04
3/5/2003	-	-	-	-	-	-	-	-	-	2.26
3/16/2004	-	-	-	-	-	-	-	-	-	2.71
3/17/2005	-	-	-	-	-	-	-	-	-	2.04
3/21/2006	-	-	-	-	-	-	-	-	-	2.13
3/6/2007	-	-	-	-	-	-	-	-	-	2.19
3/3/2008	-	-	-	-	-	-	-	-	-	1.92
3/7/2008	-	620	-	-	-	-	-	-	-	-
10/8/2008	-	620	-	-	-	-	-	-	-	-
1/20/2009	-	680	-	-	-	-	-	-	-	-
3/10/2009	-	-	-	-	-	-	-	-	-	2.01
4/16/2009	-	660	-	-	-	-	-	-	-	-
7/14/2009	-	670	-	-	-	-	-	-	-	-

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3/15/2010	-	640	-	-	-	-	-	-	-	2.26
3/10/2011	-	-	-	-	-	-	-	-	-	2.17
5/25/2011	-	670	-	-	-	-	-	-	-	-
8/4/2011	-	680	-	-	-	-	-	-	-	-
1/10/2012	-	680	-	-	-	-	-	-	-	-
3/6/2012	-	-	-	-	-	-	-	-	-	2.06
4/3/2012	-	730	-	-	-	-	-	-	-	-
8/7/2012	1,100	710	110.0	20.0	87.0	1.9	84.0	190.0	260.0	1.81
10/4/2012	-	680	-	-	-	-	-	-	-	-
1/17/2013	-	720	-	-	-	-	-	-	-	-
3/7/2013	-	-	-	-	-	-	-	-	-	1.90
4/17/2013	-	700	-	-	-	-	-	-	-	-
7/3/2013	-	740	-	-	-	-	-	-	-	-
10/3/2013	-	700	-	-	-	-	-	-	-	-
1/28/2014	-	730	-	-	-	-	-	-	-	-
3/13/2014	-	-	-	-	-	-	-	-	-	2.15
4/16/2014	-	680	-	-	-	-	-	-	-	-
7/10/2014	-	620	-	-	-	-	-	-	-	-
10/2/2014	-	730	-	-	-	-	-	-	-	-
1/13/2015	-	710	-	-	-	-	-	-	-	-
3/10/2015	-	-	-	-	-	-	-	-	-	2.01
4/14/2015	-	770	-	-	-	-	-	-	-	-
7/7/2015	-	690	-	-	-	-	-	-	-	-
8/7/2015	1,000	710	110.0	20.0	85.0	1.9	92.0	200.0	260.0	2.04
10/8/2015	-	720	-	-	-	-	-	-	-	-
1/12/2016	-	710	-	-	-	-	-	-	-	-
4/5/2016	-	700	-	-	-	-	-	-	-	-
4/21/2016	-	-	-	-	-	-	-	-	-	1.90
7/13/2016	-	750	-	-	-	-	-	-	-	-
10/5/2016	-	690	-	-	-	-	-	-	-	-
5/14/2017	-	700	-	-	-	-	-	-	-	2.20
7/11/2017	-	690	-	-	-	-	-	-	-	-
10/17/2017	-	710	-	-	-	-	-	-	-	-
1/17/2018	-	720	-	-	-	-	-	-	-	-
3/15/2018	-	-	-	-	-	-	-	-	-	2.00
4/11/2018	-	710	-	-	-	-	-	-	-	-
7/11/2018	-	720	-	-	-	-	-	-	-	-
8/15/2018	1,100	740	110.0	20.0	90.0	2.0	94.0	200.0	250.0	1.90
10/5/2018	-	720	-	-	-	-	-	-	-	-
1/8/2019	-	640	-	-	-	-	-	-	-	-
3/12/2019	-	-	-	-	-	-	-	-	-	2.20
4/9/2019	-	700	-	-	-	-	-	-	-	-
6/17/2020	-	760	-	-	-	-	-	-	-	2.20
7/16/2020	-	710	-	-	-	-	-	-	-	-
10/14/2020	-	700	-	-	-	-	-	-	-	-
1/14/2021	-	720	-	-	-	-	-	-	-	-
3/17/2021	-	-	-	-	-	-	-	-	-	2.30
8/6/2021	1,100	730	110.0	21.0	92.0	2.2	98.0	210.0	230.0	2.30
1/11/2022	-	700	-	-	-	-	-	-	-	-
3/10/2022	-	-	-	-	-	-	-	-	-	2.10
1/13/2023	-	730	-	-	-	-	-	-	-	-
3/20/2023	-	-	-	-	-	-	-	-	-	2.30
No. 123										
6/6/1990	1,100	690	69.0	27.0	132.0	6.0	130.0	170.0	281.0	0.90
6/10/1993	1,120	690	74.0	25.0	136.0	6.0	120.0	190.0	250.0	1.13
2/5/1997	930	550	55.0	18.0	110.0	5.0	83.0	130.0	250.0	0.29
4/27/1999	-	-	-	-	-	-	-	-	-	0.68
6/2/1999	-	-	-	-	-	-	-	-	-	0.68
7/20/1999	-	-	-	-	-	-	-	-	-	0.45
8/11/1999	-	-	-	-	-	-	-	-	-	0.45
9/14/1999	-	-	-	-	-	-	-	-	-	0.45
10/21/1999	-	-	-	-	-	-	-	-	-	0.45
11/2/1999	-	-	-	-	-	-	-	-	-	0.45
2/9/2000	1,150	610	59.0	20.0	100.0	5.0	83.0	150.0	240.0	0.68
2/9/2001	-	-	-	-	-	-	-	-	-	0.68
3/10/2003	880	550	59.0	20.0	87.0	4.5	80.0	180.0	170.0	ND
2/3/2004	-	-	-	-	-	-	-	-	-	0.45

NOTES:
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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
2/14/2005	-	-	-	-	-	-	-	-	-	0.45
2/14/2006	-	-	-	-	-	-	-	-	-	0.81
3/14/2006	890	530	65.0	22.0	88.0	5.0	91.0	180.0	180.0	0.52
4/24/2007	-	-	-	-	-	-	-	-	-	0.32
5/1/2007	-	-	-	-	-	-	-	-	-	0.61
6/5/2007	-	-	-	-	-	-	-	-	-	0.50
7/5/2007	-	-	-	-	-	-	-	-	-	0.57
8/7/2007	-	-	-	-	-	-	-	-	-	0.50
9/5/2007	-	-	-	-	-	-	-	-	-	0.48
9/6/2007	-	-	-	-	-	-	-	-	-	0.45
10/3/2007	-	-	-	-	-	-	-	-	-	0.45
12/13/2007	-	-	-	-	-	-	-	-	-	0.43
1/10/2008	-	-	-	-	-	-	-	-	-	0.32
2/13/2008	-	-	-	-	-	-	-	-	-	0.25
3/3/2008	-	-	-	-	-	-	-	-	-	0.29
3/7/2008	-	540	-	-	-	-	-	-	-	-
4/8/2008	-	-	-	-	-	-	-	-	-	0.50
5/12/2008	-	-	-	-	-	-	-	-	-	0.54
6/23/2008	-	-	-	-	-	-	-	-	-	0.61
7/8/2008	-	-	-	-	-	-	-	-	-	0.66
8/12/2008	-	-	-	-	-	-	-	-	-	0.59
9/15/2008	-	-	-	-	-	-	-	-	-	0.61
11/6/2008	-	-	-	-	-	-	-	-	-	0.59
12/5/2008	-	-	-	-	-	-	-	-	-	0.45
1/7/2009	-	640	-	-	-	-	-	-	-	ND
2/4/2009	-	-	-	-	-	-	-	-	-	0.36
3/9/2009	980	610	-	-	-	-	-	-	-	ND
4/2/2009	-	600	-	-	-	-	-	-	-	ND
5/7/2009	-	-	-	-	-	-	-	-	-	ND
6/1/2009	-	-	-	-	-	-	-	-	-	ND
7/9/2009	-	590	-	-	-	-	-	-	-	ND
8/5/2009	-	-	-	-	-	-	-	-	-	ND
1/6/2010	-	590	-	-	-	-	-	-	-	0.32
2/2/2010	-	-	-	-	-	-	-	-	-	0.25
3/3/2010	-	-	-	-	-	-	-	-	-	0.27
4/8/2010	-	600	-	-	-	-	-	-	-	0.27
5/6/2010	-	-	-	-	-	-	-	-	-	0.34
6/2/2010	-	-	-	-	-	-	-	-	-	ND
7/1/2010	-	750	-	-	-	-	-	-	-	ND
8/10/2010	-	-	-	-	-	-	-	-	-	0.54
9/1/2010	-	-	-	-	-	-	-	-	-	0.48
10/7/2010	-	630	-	-	-	-	-	-	-	ND
11/1/2010	-	-	-	-	-	-	-	-	-	ND
12/2/2010	-	-	-	-	-	-	-	-	-	ND
1/12/2011	-	570	-	-	-	-	-	-	-	0.45
2/15/2011	-	-	-	-	-	-	-	-	-	0.45
3/9/2011	-	-	-	-	-	-	-	-	-	0.45
4/5/2011	-	580	-	-	-	-	-	-	-	0.45
5/5/2011	-	-	-	-	-	-	-	-	-	0.45
6/7/2011	-	-	-	-	-	-	-	-	-	0.45
7/6/2011	-	600	-	-	-	-	-	-	-	0.45
8/3/2011	-	-	-	-	-	-	-	-	-	0.45
9/2/2011	-	-	-	-	-	-	-	-	-	0.52
10/13/2011	-	550	-	-	-	-	-	-	-	0.50
11/10/2011	-	-	-	-	-	-	-	-	-	ND
12/7/2011	-	-	-	-	-	-	-	-	-	ND
1/6/2012	-	540	-	-	-	-	-	-	-	ND
9/5/2012	-	-	-	-	-	-	-	-	-	0.32
10/10/2012	-	360	-	-	-	-	-	-	-	0.27
11/1/2012	-	-	-	-	-	-	-	-	-	0.36
11/28/2012	710	450	46.0	16.0	69.0	4.3	69.0	110.0	150.0	0.38
12/5/2012	-	-	-	-	-	-	-	-	-	0.43
1/9/2013	-	440	-	-	-	-	-	-	-	0.29
2/12/2013	-	-	-	-	-	-	-	-	-	0.32
3/6/2013	-	-	-	-	-	-	-	-	-	0.36
4/8/2013	-	430	-	-	-	-	-	-	-	0.41
5/7/2013	-	-	-	-	-	-	-	-	-	0.43
6/5/2013	-	-	-	-	-	-	-	-	-	0.38

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
7/9/2013	-	470	-	-	-	-	-	-	-	0.50
8/15/2013	-	-	-	-	-	-	-	-	-	0.41
9/5/2013	-	-	-	-	-	-	-	-	-	0.36
10/8/2013	-	490	-	-	-	-	-	-	-	0.38
11/6/2013	-	-	-	-	-	-	-	-	-	0.38
12/11/2013	-	-	-	-	-	-	-	-	-	0.43
1/14/2014	-	530	-	-	-	-	-	-	-	0.34
2/6/2014	-	-	-	-	-	-	-	-	-	0.45
3/5/2014	-	-	-	-	-	-	-	-	-	0.29
4/9/2014	-	550	-	-	-	-	-	-	-	0.41
5/8/2014	-	-	-	-	-	-	-	-	-	0.41
6/3/2014	-	-	-	-	-	-	-	-	-	0.48
7/3/2014	-	540	-	-	-	-	-	-	-	0.48
8/7/2014	-	-	-	-	-	-	-	-	-	0.48
9/3/2014	-	-	-	-	-	-	-	-	-	0.27
10/2/2014	-	550	-	-	-	-	-	-	-	0.29
11/6/2014	-	-	-	-	-	-	-	-	-	0.38
12/4/2014	-	-	-	-	-	-	-	-	-	0.45
1/21/2015	-	730	-	-	-	-	-	-	-	0.41
2/5/2015	-	-	-	-	-	-	-	-	-	0.45
3/5/2015	920	570	61.0	21.0	89.0	5.1	82.0	160.0	160.0	0.48
4/15/2015	-	550	-	-	-	-	-	-	-	0.50
5/6/2015	-	-	-	-	-	-	-	-	-	0.52
6/2/2015	-	-	-	-	-	-	-	-	-	0.54
7/14/2015	-	660	-	-	-	-	-	-	-	0.54
8/4/2015	-	-	-	-	-	-	-	-	-	0.57
9/9/2015	-	-	-	-	-	-	-	-	-	0.57
10/14/2015	-	540	-	-	-	-	-	-	-	0.57
11/4/2015	-	-	-	-	-	-	-	-	-	0.61
12/2/2015	-	-	-	-	-	-	-	-	-	0.48
11/22/2022	830	560	68.0	23.0	91.0	5.3	99.0	190.0	150.0	0.42
12/9/2022	-	-	-	-	-	-	-	-	-	0.47
1/18/2023	-	-	-	-	-	-	-	-	-	0.47
2/8/2023	-	-	-	-	-	-	-	-	-	0.54
3/8/2023	-	-	-	-	-	-	-	-	-	0.77
4/10/2023	-	-	-	-	-	-	-	-	-	0.86
5/4/2023	-	-	-	-	-	-	-	-	-	0.80
6/7/2023	-	-	-	-	-	-	-	-	-	0.69
7/14/2023	-	-	-	-	-	-	-	-	-	0.62
No. 124										
6/20/1990	660	380	38.0	4.0	92.0	3.0	97.0	48.0	153.0	2.94
7/22/1993	690	430	42.0	5.0	89.0	3.0	90.0	57.0	159.0	3.85
7/18/1995	-	-	-	-	-	-	-	-	-	2.49
10/26/1999	700	420	45.0	4.0	94.0	3.0	97.0	61.0	160.0	3.62
7/6/2000	-	-	-	-	-	-	-	-	-	3.85
7/10/2001	-	-	-	-	-	-	-	-	-	3.62
7/3/2002	-	-	-	-	-	-	-	-	-	2.26
10/2/2002	600	330	24.0	2.4	92.0	1.9	75.0	38.0	150.0	2.26
1/8/2003	-	-	-	-	-	-	-	-	-	2.30
7/1/2003	-	-	-	-	-	-	-	-	-	1.88
7/7/2004	-	-	-	-	-	-	-	-	-	2.13
7/6/2005	-	-	-	-	-	-	-	-	-	1.90
10/5/2005	580	360	19.0	2.4	96.0	1.6	74.0	35.0	140.0	1.76
9/26/2006	-	-	-	-	-	-	-	-	-	3.85
9/5/2007	-	-	-	-	-	-	-	-	-	1.86
10/28/2008	780	490	52.0	6.5	84.0	3.1	91.0	84.0	150.0	0.41
1/13/2009	-	390	-	-	-	-	-	-	-	-
4/7/2009	-	330	-	-	-	-	-	-	-	-
7/9/2009	-	320	-	-	-	-	-	-	-	-
1/6/2010	-	390	-	-	-	-	-	-	-	-
4/8/2010	-	360	-	-	-	-	-	-	-	-
7/1/2010	-	390	-	-	-	-	-	-	-	-
10/6/2010	-	320	-	-	-	-	-	-	-	2.26
1/4/2011	-	390	-	-	-	-	-	-	-	-
4/5/2011	-	390	-	-	-	-	-	-	-	-
7/6/2011	-	350	-	-	-	-	-	-	-	-
10/12/2011	610	390	23.0	2.5	95.0	2.2	80.0	44.0	150.0	2.26

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1/10/2012	-	330	-	-	-	-	-	-	-	-
4/4/2012	-	410	-	-	-	-	-	-	-	-
10/9/2012	-	360	-	-	-	-	-	-	-	2.10
3/20/2013	-	480	-	-	-	-	-	-	-	-
4/8/2013	-	410	-	-	-	-	-	-	-	-
7/19/2013	-	360	-	-	-	-	-	-	-	-
10/8/2013	-	360	-	-	-	-	-	-	-	2.49
1/14/2014	-	350	-	-	-	-	-	-	-	-
4/9/2014	-	400	-	-	-	-	-	-	-	-
7/24/2014	-	460	-	-	-	-	-	-	-	-
10/2/2014	600	370	22.0	2.3	100.0	1.7	78.0	45.0	150.0	2.17
1/7/2015	-	390	-	-	-	-	-	-	-	-
4/23/2015	-	490	-	-	-	-	-	-	-	-
7/16/2015	-	360	-	-	-	-	-	-	-	-
10/9/2015	-	310	-	-	-	-	-	-	-	2.19
4/13/2016	-	410	-	-	-	-	-	-	-	-
7/13/2016	-	340	-	-	-	-	-	-	-	-
10/6/2016	-	320	-	-	-	-	-	-	-	1.90
5/14/2017	-	440	-	-	-	-	-	-	-	-
7/11/2017	-	340	-	-	-	-	-	-	-	-
10/17/2017	600	360	20.0	1.9	100.0	1.5	75.0	42.0	110.0	1.90
2/9/2018	-	410	-	-	-	-	-	-	-	-
4/11/2018	-	380	-	-	-	-	-	-	-	-
7/18/2018	-	350	-	-	-	-	-	-	-	-
10/11/2018	-	350	-	-	-	-	-	-	-	2.30
No. 125										
6/20/1990	740	425	17.0	5.0	132.0	3.0	99.0	54.0	186.0	0.90
6/10/1993	770	450	18.0	5.0	140.0	3.0	150.0	60.0	131.0	0.68
6/20/1995	-	-	-	-	-	-	-	-	-	0.45
6/9/1997	-	-	-	-	-	-	-	-	-	0.45
9/17/1998	-	-	-	-	-	-	-	-	-	0.68
6/3/1999	720	440	10.0	3.0	135.0	2.0	89.0	76.0	170.0	ND
11/2/1999	-	-	-	-	-	-	-	-	-	0.68
11/15/2000	-	-	-	-	-	-	-	-	-	0.45
7/24/2001	-	-	-	-	-	-	-	-	-	0.90
6/19/2002	700	400	8.8	2.3	130.0	1.8	87.0	54.0	170.0	ND
7/3/2002	-	-	-	-	-	-	-	-	-	0.45
1/13/2003	-	-	-	-	-	-	-	-	-	0.38
7/1/2003	-	-	-	-	-	-	-	-	-	ND
6/9/2004	-	-	-	-	-	-	-	-	-	ND
6/14/2005	650	350	8.3	2.1	130.0	1.6	82.0	52.0	180.0	0.41
6/13/2006	-	-	-	-	-	-	-	-	-	0.63
6/5/2007	-	-	-	-	-	-	-	-	-	0.36
6/10/2008	770	460	17.0	4.6	150.0	2.4	93.0	64.0	190.0	0.61
9/15/2008	-	370	-	-	-	-	-	-	-	-
12/5/2008	-	450	-	-	-	-	-	-	-	-
3/4/2009	-	440	-	-	-	-	-	-	-	-
6/1/2009	-	560	-	-	-	-	-	-	-	ND
7/27/2010	-	480	-	-	-	-	-	-	-	0.84
10/6/2010	-	430	-	-	-	-	-	-	-	-
1/14/2011	-	420	-	-	-	-	-	-	-	-
4/5/2011	-	390	-	-	-	-	-	-	-	-
No. 126										
5/4/1988	480	290	4.0	ND	106.0	ND	53.0	14.0	64.0	ND
7/6/1989	500	270	2.0	1.0	108.0	ND	55.0	11.0	98.0	ND
7/18/1995	540	315	1.0	ND	122.0	ND	72.0	11.0	122.0	ND
7/7/1997	-	-	-	-	-	-	-	-	-	ND
7/16/1997	-	-	-	-	-	-	-	-	-	0.20
7/23/1997	-	-	-	-	-	-	-	-	-	0.20
8/20/1997	-	-	-	-	-	-	-	-	-	0.40
9/3/1997	-	-	-	-	-	-	-	-	-	0.20
9/17/1997	-	-	-	-	-	-	-	-	-	0.20
7/20/1998	520	330	2.0	ND	120.0	ND	56.0	11.0	130.0	ND
9/16/1998	-	300	-	-	-	-	-	-	-	0.40
4/14/1999	-	-	-	-	-	-	-	-	-	0.45
4/11/2000	-	-	-	-	-	-	-	-	-	ND

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4/11/2001	-	-	-	-	-	-	-	-	-	0.45
7/12/2001	530	300	2.0	ND	100.0	ND	53.0	12.0	140.0	ND
6/20/2002	-	-	-	-	-	-	-	-	-	ND
8/6/2002	-	-	-	-	-	-	-	-	-	ND
1/8/2003	-	-	-	-	-	-	-	-	-	0.25
11/4/2003	-	-	-	-	-	-	-	-	-	ND
7/22/2004	520	310	1.5	ND	110.0	ND	59.0	10.0	120.0	0.27
11/3/2004	-	-	-	-	-	-	-	-	-	ND
11/2/2005	-	-	-	-	-	-	-	-	-	ND
11/8/2006	-	-	-	-	-	-	-	-	-	ND
7/3/2007	530	330	1.4	ND	110.0	ND	62.0	10.0	140.0	ND
11/14/2007	-	-	-	-	-	-	-	-	-	0.43
8/7/2008	-	280	-	-	-	-	-	-	-	-
2/4/2009	-	280	-	-	-	-	-	-	-	-
5/6/2009	-	280	-	-	-	-	-	-	-	-
8/4/2009	-	270	-	-	-	-	-	-	-	-
2/3/2010	-	290	-	-	-	-	-	-	-	-
5/6/2010	-	390	-	-	-	-	-	-	-	-
7/13/2010	530	300	1.6	ND	110.0	ND	58.0	11.0	130.0	ND
8/24/2010	-	330	-	-	-	-	-	-	-	-
11/3/2010	-	300	-	-	-	-	-	-	-	0.34
2/4/2011	-	280	-	-	-	-	-	-	-	-
5/3/2011	-	300	-	-	-	-	-	-	-	-
8/2/2011	-	280	-	-	-	-	-	-	-	-
11/1/2011	-	270	-	-	-	-	-	-	-	ND
2/6/2012	-	350	-	-	-	-	-	-	-	-
5/2/2012	-	330	-	-	-	-	-	-	-	-
8/6/2012	-	290	-	-	-	-	-	-	-	-
11/5/2012	-	320	-	-	-	-	-	-	-	0.43
2/5/2013	-	290	-	-	-	-	-	-	-	-
5/1/2013	-	280	-	-	-	-	-	-	-	-
8/1/2013	640	310	2.4	ND	120.0	ND	81.0	13.0	140.0	0.52
11/4/2013	-	280	-	-	-	-	-	-	-	ND
2/4/2014	-	270	-	-	-	-	-	-	-	-
8/4/2014	-	270	-	-	-	-	-	-	-	-
11/12/2014	-	280	-	-	-	-	-	-	-	0.57
2/4/2015	-	260	-	-	-	-	-	-	-	-
5/5/2015	-	270	-	-	-	-	-	-	-	-
8/4/2015	-	250	-	-	-	-	-	-	-	-
11/3/2015	-	250	-	-	-	-	-	-	-	0.23
2/11/2016	-	340	-	-	-	-	-	-	-	-
5/3/2016	-	270	-	-	-	-	-	-	-	-
7/6/2016	570	290	1.6	ND	110.0	ND	60.0	10.0	130.0	0.28
8/2/2016	-	290	-	-	-	-	-	-	-	-
11/3/2016	-	310	-	-	-	-	-	-	-	0.61
2/2/2017	-	310	-	-	-	-	-	-	-	-
5/2/2017	-	300	-	-	-	-	-	-	-	-
8/7/2017	-	310	-	-	-	-	-	-	-	-
11/1/2017	-	300	-	-	-	-	-	-	-	0.33
2/2/2018	-	310	-	-	-	-	-	-	-	-
5/3/2018	-	300	-	-	-	-	-	-	-	-
8/9/2018	-	300	-	-	-	-	-	-	-	-
11/9/2018	-	290	-	-	-	-	-	-	-	0.36
2/7/2019	-	280	-	-	-	-	-	-	-	-
5/6/2019	-	310	-	-	-	-	-	-	-	-
7/1/2019	510	310	1.9	ND	120.0	ND	73.0	13.0	120.0	ND
8/8/2019	-	280	-	-	-	-	-	-	-	-
11/6/2019	-	280	-	-	-	-	-	-	-	0.30
2/5/2020	-	300	-	-	-	-	-	-	-	-
5/4/2020	-	280	-	-	-	-	-	-	-	-
8/4/2020	-	280	-	-	-	-	-	-	-	-
11/4/2020	-	290	-	-	-	-	-	-	-	0.29
3/2/2021	-	300	-	-	-	-	-	-	-	-
11/3/2021	-	-	-	-	-	-	-	-	-	0.30
3/15/2022	-	280	-	-	-	-	-	-	-	-
7/6/2022	510	290	1.9	ND	120.0	ND	74.0	13.0	130.0	0.20
11/3/2022	-	-	-	-	-	-	-	-	-	0.30
3/16/2023	-	280	-	-	-	-	-	-	-	-

NOTES:
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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
No. 128										
7/6/1989	400	230	27.0	3.0	54.0	2.0	59.0	7.0	101.0	5.66
7/8/1992	390	230	21.0	2.0	59.0	2.0	55.0	ND	110.0	5.43
7/20/1995	380	275	16.0	2.0	66.0	1.0	65.0	10.0	101.0	4.30
7/7/1997	-	-	-	-	-	-	-	-	-	3.39
7/20/1998	370	260	12.0	ND	71.0	1.0	48.0	11.0	110.0	3.17
6/2/1999	-	-	-	-	-	-	-	-	-	2.94
6/8/2001	-	-	-	-	-	-	-	-	-	3.17
7/10/2001	400	230	10.0	ND	68.0	ND	44.0	12.0	100.0	2.71
6/20/2002	-	-	-	-	-	-	-	-	-	2.71
1/8/2003	-	-	-	-	-	-	-	-	-	2.71
1/14/2004	-	-	-	-	-	-	-	-	-	2.26
7/14/2004	390	240	8.3	1.0	67.0	1.0	48.0	11.0	92.0	2.94
1/11/2005	-	-	-	-	-	-	-	-	-	1.36
1/10/2006	-	-	-	-	-	-	-	-	-	1.79
No. 129										
11/29/1989	430	260	16.0	3.0	66.0	2.0	71.0	16.0	92.0	2.04
8/8/1990	440	280	20.0	5.0	64.0	2.0	72.0	14.0	119.0	2.26
4/1/1992	-	-	-	-	-	-	-	-	-	2.71
9/10/1993	470	275	24.0	6.0	60.0	2.0	74.0	16.0	110.0	2.94
8/9/1996	460	270	19.0	3.0	67.0	2.0	70.0	15.0	100.0	2.49
2/4/1997	-	-	-	-	-	-	-	-	-	11.99
12/20/2000	550	330	44.0	13.0	47.0	2.0	81.0	14.0	130.0	4.52
3/22/2001	-	-	-	-	-	-	-	-	-	4.52
4/17/2001	-	-	-	-	-	-	-	-	-	4.52
5/2/2001	-	-	-	-	-	-	-	-	-	4.07
6/8/2001	-	-	-	-	-	-	-	-	-	4.52
10/16/2001	-	-	-	-	-	-	-	-	-	4.30
11/13/2001	-	-	-	-	-	-	-	-	-	4.07
2/26/2002	-	-	-	-	-	-	-	-	-	3.62
5/23/2002	-	-	-	-	-	-	-	-	-	3.17
9/18/2002	-	-	-	-	-	-	-	-	-	3.39
No. 130										
2/17/1988	650	365	16.0	1.0	132.0	1.0	69.0	64.0	ND	0.90
2/14/1991	640	365	4.0	ND	132.0	1.0	68.0	56.0	122.0	-
4/24/1991	-	-	-	-	-	-	-	-	-	0.68
2/9/1994	650	410	3.0	ND	148.0	1.0	81.0	72.0	146.0	0.90
5/16/1995	-	-	-	-	-	-	-	-	-	0.90
2/5/1997	780	450	4.0	ND	170.0	ND	78.0	82.0	150.0	1.13
5/14/1997	-	-	-	-	-	-	-	-	-	0.90
4/14/1999	-	-	-	-	-	-	-	-	-	1.13
2/10/2000	750	440	4.0	ND	170.0	ND	76.0	77.0	170.0	1.13
4/12/2000	-	-	-	-	-	-	-	-	-	1.13
5/25/2000	-	-	-	-	-	-	-	-	-	1.36
5/24/2001	-	-	-	-	-	-	-	-	-	1.36
5/24/2002	-	-	-	-	-	-	-	-	-	1.13
2/19/2003	820	460	4.1	ND	170.0	ND	87.0	96.0	180.0	1.13
5/4/2004	-	-	-	-	-	-	-	-	-	1.15
5/12/2005	-	-	-	-	-	-	-	-	-	1.13
2/14/2006	800	450	4.1	ND	170.0	ND	83.0	91.0	200.0	1.15
5/12/2006	-	-	-	-	-	-	-	-	-	1.02
5/1/2007	-	-	-	-	-	-	-	-	-	1.02
5/7/2008	-	440	-	-	-	-	-	-	-	0.93
8/12/2008	-	470	-	-	-	-	-	-	-	-
11/9/2008	-	560	-	-	-	-	-	-	-	-
2/11/2009	840	440	4.6	ND	170.0	ND	91.0	110.0	150.0	1.09
5/11/2009	-	480	-	-	-	-	-	-	-	0.79
8/31/2009	-	470	-	-	-	-	-	-	-	-
2/4/2010	-	480	-	-	-	-	-	-	-	-
5/6/2010	-	410	-	-	-	-	-	-	-	1.02
8/11/2010	-	460	-	-	-	-	-	-	-	-
11/1/2010	-	480	-	-	-	-	-	-	-	-
12/2/2010	-	400	-	-	-	-	-	-	-	-
7/15/2011	-	480	-	-	-	-	-	-	-	-
8/4/2011	-	-	-	-	-	-	-	-	-	1.06

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
10/13/2011	-	490	-	-	-	-	-	-	-	-
1/10/2012	-	460	-	-	-	-	-	-	-	-
2/9/2012	810	480	4.4	ND	160.0	1.2	80.0	100.0	180.0	0.90
8/8/2012	-	-	-	-	-	-	-	-	-	0.95
10/9/2012	-	480	-	-	-	-	-	-	-	-
1/3/2013	-	500	-	-	-	-	-	-	-	-
4/8/2013	-	490	-	-	-	-	-	-	-	-
7/9/2013	-	460	-	-	-	-	-	-	-	-
8/15/2013	-	-	-	-	-	-	-	-	-	0.95
10/8/2013	-	470	-	-	-	-	-	-	-	-
1/14/2014	-	470	-	-	-	-	-	-	-	-
4/9/2014	-	500	-	-	-	-	-	-	-	-
7/8/2014	-	480	-	-	-	-	-	-	-	-
8/7/2014	-	-	-	-	-	-	-	-	-	1.06
10/2/2014	-	520	-	-	-	-	-	-	-	-
2/20/2015	880	480	5.1	ND	170.0	ND	81.0	110.0	180.0	0.93
4/15/2015	-	470	-	-	-	-	-	-	-	-
7/14/2015	-	510	-	-	-	-	-	-	-	-
8/4/2015	-	-	-	-	-	-	-	-	-	1.00
10/13/2015	-	470	-	-	-	-	-	-	-	-
1/13/2016	-	470	-	-	-	-	-	-	-	-
4/13/2016	-	550	-	-	-	-	-	-	-	-
7/19/2016	-	490	-	-	-	-	-	-	-	-
8/3/2016	-	-	-	-	-	-	-	-	-	0.89
10/11/2016	-	490	-	-	-	-	-	-	-	-
1/17/2017	-	500	-	-	-	-	-	-	-	-
4/6/2017	-	490	-	-	-	-	-	-	-	-
7/6/2017	-	480	-	-	-	-	-	-	-	-
8/15/2017	-	-	-	-	-	-	-	-	-	0.95
10/11/2017	-	490	-	-	-	-	-	-	-	-
1/12/2018	-	540	-	-	-	-	-	-	-	-
2/7/2018	840	480	6.0	ND	170.0	1.1	90.0	120.0	150.0	0.97
4/13/2018	-	490	-	-	-	-	-	-	-	-
7/11/2018	-	510	-	-	-	-	-	-	-	-
8/9/2018	-	-	-	-	-	-	-	-	-	0.99
10/11/2018	-	510	-	-	-	-	-	-	-	-
1/3/2019	-	480	-	-	-	-	-	-	-	-
5/14/2019	-	490	-	-	-	-	-	-	-	-
7/3/2019	-	500	-	-	-	-	-	-	-	-
8/14/2019	-	-	-	-	-	-	-	-	-	0.88
10/14/2019	-	490	-	-	-	-	-	-	-	-
1/7/2020	-	520	-	-	-	-	-	-	-	-
4/1/2020	-	490	-	-	-	-	-	-	-	-
7/1/2020	-	480	-	-	-	-	-	-	-	-
8/12/2020	-	-	-	-	-	-	-	-	-	1.00
10/6/2020	-	450	-	-	-	-	-	-	-	-
1/6/2021	-	480	-	-	-	-	-	-	-	-
2/11/2021	840	510	6.3	ND	180.0	1.1	90.0	130.0	150.0	1.00
8/5/2021	-	-	-	-	-	-	-	-	-	1.00
5/3/2022	-	510	-	-	-	-	-	-	-	-
8/10/2022	-	-	-	-	-	-	-	-	-	1.00
1/18/2023	-	500	-	-	-	-	-	-	-	-
8/1/2023	-	-	-	-	-	-	-	-	-	1.10
No. 131										
3/10/1988	530	270	4.0	ND	108.0	1.0	57.0	52.0	31.0	0.23
3/21/1991	630	335	7.0	ND	120.0	1.0	74.0	65.0	98.0	0.68
3/3/1994	660	345	9.0	ND	124.0	2.0	86.0	73.0	119.0	0.45
3/30/1995	-	-	-	-	-	-	-	-	-	0.45
3/20/1997	660	370	6.0	ND	125.0	1.0	81.0	73.0	100.0	0.45
7/7/1997	-	-	-	-	-	-	-	-	-	ND
7/27/1998	-	-	-	-	-	-	-	-	-	0.45
6/3/1999	-	-	-	-	-	-	-	-	-	ND
3/7/2000	720	380	9.0	ND	140.0	2.0	81.0	80.0	130.0	0.68
6/21/2000	-	-	-	-	-	-	-	-	-	0.45
6/27/2001	-	-	-	-	-	-	-	-	-	0.45
6/5/2002	-	-	-	-	-	-	-	-	-	ND
3/13/2003	700	390	8.0	ND	130.0	1.4	88.0	88.0	130.0	0.68

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6/11/2003	-	-	-	-	-	-	-	-	-	ND
6/9/2004	-	-	-	-	-	-	-	-	-	ND
6/15/2005	-	-	-	-	-	-	-	-	-	0.45
3/7/2006	710	420	9.1	ND	140.0	1.5	93.0	93.0	130.0	0.68
6/7/2006	-	-	-	-	-	-	-	-	-	0.38
6/26/2007	-	-	-	-	-	-	-	-	-	0.54
6/4/2008	-	390	-	-	-	-	-	-	-	0.34
9/15/2008	-	330	-	-	-	-	-	-	-	-
12/3/2008	-	430	-	-	-	-	-	-	-	-
3/4/2009	640	380	6.0	ND	130.0	1.2	71.0	77.0	130.0	ND
6/2/2009	-	360	-	-	-	-	-	-	-	ND
3/3/2010	-	380	-	-	-	-	-	-	-	-
6/2/2010	-	360	-	-	-	-	-	-	-	0.45
9/1/2010	-	360	-	-	-	-	-	-	-	-
3/2/2011	-	430	-	-	-	-	-	-	-	-
6/7/2011	-	360	-	-	-	-	-	-	-	0.45
9/2/2011	-	330	-	-	-	-	-	-	-	-
12/7/2011	-	420	-	-	-	-	-	-	-	-
3/2/2012	-	410	-	-	-	-	-	-	-	-
6/5/2012	-	350	-	-	-	-	-	-	-	0.34
9/5/2012	-	370	-	-	-	-	-	-	-	-
12/4/2012	-	370	-	-	-	-	-	-	-	-
3/6/2013	-	350	-	-	-	-	-	-	-	-
6/5/2013	-	360	-	-	-	-	-	-	-	0.41
9/4/2013	-	370	-	-	-	-	-	-	-	-
12/4/2013	-	370	-	-	-	-	-	-	-	-
3/11/2014	-	440	-	-	-	-	-	-	-	-
6/3/2014	-	460	-	-	-	-	-	-	-	0.77
9/3/2014	-	380	-	-	-	-	-	-	-	-
6/3/2015	-	370	-	-	-	-	-	-	-	0.50
9/9/2015	-	380	-	-	-	-	-	-	-	-
11/4/2015	660	360	6.8	ND	130.0	1.0	72.0	78.0	140.0	0.50
12/2/2015	-	300	-	-	-	-	-	-	-	-
3/3/2016	-	330	-	-	-	-	-	-	-	-
6/7/2016	-	370	-	-	-	-	-	-	-	0.47
9/7/2016	-	370	-	-	-	-	-	-	-	-
12/10/2016	-	410	-	-	-	-	-	-	-	-
3/8/2017	-	410	-	-	-	-	-	-	-	-
6/8/2017	-	380	-	-	-	-	-	-	-	0.53
9/13/2017	-	390	-	-	-	-	-	-	-	-
12/12/2017	-	420	-	-	-	-	-	-	-	-
3/7/2018	680	400	7.8	ND	130.0	1.4	77.0	89.0	120.0	0.46
6/12/2018	-	390	-	-	-	-	-	-	-	0.48
9/11/2018	-	390	-	-	-	-	-	-	-	-
12/4/2018	-	430	-	-	-	-	-	-	-	-
3/13/2019	-	410	-	-	-	-	-	-	-	-
6/5/2019	-	370	-	-	-	-	-	-	-	0.27
9/10/2019	-	390	-	-	-	-	-	-	-	-
12/16/2019	-	420	-	-	-	-	-	-	-	-
3/3/2020	-	360	-	-	-	-	-	-	-	-
6/4/2020	-	380	-	-	-	-	-	-	-	0.31
9/17/2020	-	360	-	-	-	-	-	-	-	-
9/23/2020	-	370	-	-	-	-	-	-	-	-
12/10/2020	-	410	-	-	-	-	-	-	-	-
3/10/2021	670	390	7.7	ND	140.0	1.5	83.0	89.0	110.0	0.63
6/3/2021	-	-	-	-	-	-	-	-	-	0.46
3/9/2022	-	360	-	-	-	-	-	-	-	-
6/2/2022	-	-	-	-	-	-	-	-	-	5.00
3/16/2023	-	420	-	-	-	-	-	-	-	-
6/7/2023	-	-	-	-	-	-	-	-	-	0.45
No. 132										
4/18/1988	1,000	620	94.0	13.0	103.0	6.0	109.0	153.0	235.0	0.45
5/8/1991	920	590	64.0	19.0	110.0	5.0	100.0	160.0	201.0	ND
5/13/1994	730	460	50.0	15.0	78.0	5.0	73.0	110.0	195.0	0.23
5/16/1995	-	-	-	-	-	-	-	-	-	ND
7/18/1995	860	520	59.0	17.0	100.0	4.0	90.0	130.0	223.0	0.23
7/20/1998	900	590	69.0	20.0	110.0	5.0	89.0	150.0	230.0	0.45

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1/6/1999	-	-	-	-	-	-	-	-	-	0.45
2/3/1999	-	-	-	-	-	-	-	-	-	0.45
4/14/1999	-	-	-	-	-	-	-	-	-	0.68
6/3/1999	-	-	-	-	-	-	-	-	-	0.68
7/27/1999	-	-	-	-	-	-	-	-	-	1.13
8/11/1999	-	-	-	-	-	-	-	-	-	0.90
9/15/1999	-	-	-	-	-	-	-	-	-	0.90
10/21/1999	-	-	-	-	-	-	-	-	-	0.90
11/2/1999	-	-	-	-	-	-	-	-	-	0.68
12/15/1999	-	-	-	-	-	-	-	-	-	0.68
5/3/2000	-	-	-	-	-	-	-	-	-	0.45
5/16/2001	800	500	57.0	17.0	74.0	5.0	63.0	180.0	150.0	0.68
5/1/2002	-	-	-	-	-	-	-	-	-	0.45
5/3/2005	-	-	-	-	-	-	-	-	-	ND
5/12/2006	-	-	-	-	-	-	-	-	-	0.72
5/1/2007	-	-	-	-	-	-	-	-	-	1.06
5/3/2007	820	500	53.0	16.0	64.0	4.4	72.0	150.0	160.0	0.72
5/6/2008	-	670	-	-	-	-	-	-	-	0.81
8/12/2008	-	690	-	-	-	-	-	-	-	-
11/6/2008	-	650	-	-	-	-	-	-	-	-
2/5/2009	-	570	-	-	-	-	-	-	-	-
5/11/2009	-	590	-	-	-	-	-	-	-	ND
8/5/2009	-	600	-	-	-	-	-	-	-	-
2/3/2010	-	580	-	-	-	-	-	-	-	-
5/6/2010	960	600	67.0	22.0	88.0	5.6	96.0	220.0	170.0	0.27
8/10/2010	-	570	-	-	-	-	-	-	-	-
11/1/2010	-	610	-	-	-	-	-	-	-	-
2/15/2011	-	580	-	-	-	-	-	-	-	-
5/4/2011	-	590	-	-	-	-	-	-	-	0.45
8/3/2011	-	580	-	-	-	-	-	-	-	-
11/2/2011	-	510	-	-	-	-	-	-	-	-
2/8/2012	-	450	-	-	-	-	-	-	-	-
5/2/2012	-	420	-	-	-	-	-	-	-	0.75
8/8/2012	-	360	-	-	-	-	-	-	-	-
11/1/2012	-	370	-	-	-	-	-	-	-	-
1/29/2014	-	520	-	-	-	-	-	-	-	-
2/6/2014	-	460	-	-	-	-	-	-	-	-
5/15/2014	-	510	-	-	-	-	-	-	-	0.34
8/6/2014	-	500	-	-	-	-	-	-	-	-
11/6/2014	-	540	-	-	-	-	-	-	-	-
2/5/2015	-	530	-	-	-	-	-	-	-	-
5/7/2015	-	520	-	-	-	-	-	-	-	0.27
8/7/2015	-	570	-	-	-	-	-	-	-	-
11/10/2015	-	620	-	-	-	-	-	-	-	-
2/10/2016	-	660	-	-	-	-	-	-	-	-
5/11/2016	1,300	760	94.0	33.0	100.0	6.1	140.0	200.0	220.0	0.44
8/3/2016	-	820	-	-	-	-	-	-	-	-
11/2/2016	-	680	-	-	-	-	-	-	-	-
2/2/2017	-	640	-	-	-	-	-	-	-	-
5/3/2017	-	620	-	-	-	-	-	-	-	0.29
8/10/2017	-	610	-	-	-	-	-	-	-	-
11/8/2017	-	510	-	-	-	-	-	-	-	-
2/5/2018	-	390	-	-	-	-	-	-	-	-
5/15/2018	-	390	-	-	-	-	-	-	-	0.39
8/9/2018	-	390	-	-	-	-	-	-	-	-
11/8/2018	-	480	-	-	-	-	-	-	-	-
2/19/2019	-	470	-	-	-	-	-	-	-	-
5/1/2019	810	-	60.0	21.0	75.0	4.5	84.0	160.0	140.0	0.23
5/14/2019	-	510	-	-	-	-	-	-	-	-
8/9/2019	-	550	-	-	-	-	-	-	-	-
11/7/2019	-	380	-	-	-	-	-	-	-	-
2/5/2020	-	370	-	-	-	-	-	-	-	-
5/7/2020	-	360	-	-	-	-	-	-	-	0.80
8/12/2020	-	370	-	-	-	-	-	-	-	-
11/4/2020	-	360	-	-	-	-	-	-	-	-
3/4/2021	-	430	-	-	-	-	-	-	-	-
5/7/2021	-	-	-	-	-	-	-	-	-	0.87
3/15/2022	-	560	-	-	-	-	-	-	-	-

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
5/3/2022	850	550	76.0	26.0	86.0	5.4	99.0	190.0	150.0	0.46
4/11/2023	-	590	-	-	-	-	-	-	-	-
5/5/2023	-	-	-	-	-	-	-	-	-	0.70
No. 133										
3/28/1990	970	605	50.0	20.0	112.0	5.0	120.0	131.0	235.0	0.68
3/11/1993	970	580	48.0	19.0	120.0	4.0	110.0	140.0	204.0	0.68
6/6/1995	-	-	-	-	-	-	-	-	-	0.45
7/18/1995	850	680	26.0	10.0	142.0	2.0	120.0	100.0	174.0	0.45
6/23/1997	-	-	-	-	-	-	-	-	-	0.68
7/20/1998	790	500	24.0	9.0	140.0	2.0	96.0	93.0	170.0	0.45
8/2/2000	-	-	-	-	-	-	-	-	-	0.68
3/28/2001	800	460	22.0	10.0	130.0	2.0	98.0	100.0	170.0	ND
8/2/2001	-	-	-	-	-	-	-	-	-	ND
9/18/2002	-	-	-	-	-	-	-	-	-	0.45
9/16/2003	-	-	-	-	-	-	-	-	-	0.45
3/12/2004	810	500	25.0	10.0	130.0	2.4	95.0	99.0	180.0	0.45
3/7/2007	820	500	26.0	9.7	140.0	2.4	94.0	98.0	160.0	0.52
3/3/2008	-	-	-	-	-	-	-	-	-	0.48
3/7/2008	-	480	-	-	-	-	-	-	-	-
7/8/2008	-	470	-	-	-	-	-	-	-	-
1/7/2009	-	540	-	-	-	-	-	-	-	-
3/4/2009	-	-	-	-	-	-	-	-	-	0.59
4/2/2009	-	460	-	-	-	-	-	-	-	-
7/9/2009	-	450	-	-	-	-	-	-	-	-
1/6/2010	-	490	-	-	-	-	-	-	-	-
3/3/2010	860	460	37.0	16.0	110.0	3.1	110.0	110.0	200.0	0.68
4/8/2010	-	490	-	-	-	-	-	-	-	-
7/8/2010	-	470	-	-	-	-	-	-	-	-
10/6/2010	-	460	-	-	-	-	-	-	-	-
1/12/2011	-	490	-	-	-	-	-	-	-	-
3/9/2011	-	-	-	-	-	-	-	-	-	0.66
4/5/2011	-	460	-	-	-	-	-	-	-	-
7/6/2011	-	440	-	-	-	-	-	-	-	-
10/13/2011	-	470	-	-	-	-	-	-	-	-
10/9/2012	-	490	-	-	-	-	-	-	-	-
12/12/2012	-	-	-	-	-	-	-	-	-	0.63
1/15/2013	-	470	-	-	-	-	-	-	-	-
3/7/2013	840	510	36.0	15.0	110.0	3.0	100.0	100.0	200.0	0.68
4/8/2013	-	470	-	-	-	-	-	-	-	-
7/9/2013	-	470	-	-	-	-	-	-	-	-
10/8/2013	-	500	-	-	-	-	-	-	-	-
1/14/2014	-	490	-	-	-	-	-	-	-	-
3/11/2014	-	-	-	-	-	-	-	-	-	0.84
4/9/2014	-	530	-	-	-	-	-	-	-	-
7/8/2014	-	540	-	-	-	-	-	-	-	-
10/2/2014	-	500	-	-	-	-	-	-	-	-
1/15/2015	-	460	-	-	-	-	-	-	-	-
3/4/2015	-	-	-	-	-	-	-	-	-	0.63
4/15/2015	-	490	-	-	-	-	-	-	-	-
7/15/2015	-	500	-	-	-	-	-	-	-	-
10/13/2015	-	400	-	-	-	-	-	-	-	-
1/20/2016	-	430	-	-	-	-	-	-	-	-
3/3/2016	-	-	-	-	-	-	-	-	-	0.51
3/15/2016	930	510	36.0	14.0	120.0	2.8	99.0	110.0	190.0	0.76
4/13/2016	-	550	-	-	-	-	-	-	-	-
7/19/2016	-	480	-	-	-	-	-	-	-	-
10/11/2016	-	510	-	-	-	-	-	-	-	-
1/17/2017	-	520	-	-	-	-	-	-	-	-
3/8/2017	-	-	-	-	-	-	-	-	-	0.69
4/6/2017	-	480	-	-	-	-	-	-	-	-
7/11/2017	-	490	-	-	-	-	-	-	-	-
1/26/2018	-	520	-	-	-	-	-	-	-	-
3/7/2018	-	-	-	-	-	-	-	-	-	0.58
4/11/2018	-	510	-	-	-	-	-	-	-	-
7/11/2018	-	480	-	-	-	-	-	-	-	-
10/11/2018	-	480	-	-	-	-	-	-	-	-
1/3/2019	-	460	-	-	-	-	-	-	-	-

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Water Quality Data

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
3/26/2019	860	510	39.0	18.0	110.0	3.3	100.0	120.0	170.0	0.53
4/3/2019	-	520	-	-	-	-	-	-	-	-
7/3/2019	-	480	-	-	-	-	-	-	-	-
8/14/2019	-	480	-	-	-	-	-	-	-	-
10/15/2019	-	470	-	-	-	-	-	-	-	-
1/8/2020	-	500	-	-	-	-	-	-	-	-
3/3/2020	-	-	-	-	-	-	-	-	-	0.32
4/2/2020	-	450	-	-	-	-	-	-	-	-
7/1/2020	-	470	-	-	-	-	-	-	-	-
10/6/2020	-	440	-	-	-	-	-	-	-	-
1/6/2021	-	450	-	-	-	-	-	-	-	-
3/4/2021	-	-	-	-	-	-	-	-	-	0.58
1/11/2022	-	460	-	-	-	-	-	-	-	-
3/2/2022	770	440	25.0	9.6	130.0	2.5	95.0	110.0	140.0	0.48
1/18/2023	-	490	-	-	-	-	-	-	-	-
3/16/2023	-	-	-	-	-	-	-	-	-	0.76
No. 135										
5/24/1989	2,450	1,390	122.0	65.0	300.0	2.0	410.0	225.0	464.0	7.47
6/6/1990	1,540	945	73.0	36.0	215.0	1.0	250.0	150.0	323.0	2.94
12/11/1990	4,400	2,670	270.0	109.0	480.0	4.0	1,030.0	380.0	314.0	ND
8/6/1992	1,800	810	63.0	33.0	170.0	1.0	200.0	160.0	281.0	-
1/16/1997	-	-	-	-	-	-	-	-	-	3.70
2/4/1997	-	-	-	-	-	-	-	-	-	3.50
2/12/1997	-	-	-	-	-	-	-	-	-	4.00
2/20/1997	-	-	-	-	-	-	-	-	-	3.40
2/25/1997	-	-	-	-	-	-	-	-	-	3.40
3/4/1997	-	-	-	-	-	-	-	-	-	3.70
3/18/1997	-	-	-	-	-	-	-	-	-	3.30
3/25/1997	-	-	-	-	-	-	-	-	-	3.50
4/8/1997	-	-	-	-	-	-	-	-	-	3.40
4/15/1997	-	-	-	-	-	-	-	-	-	3.40
4/22/1997	-	-	-	-	-	-	-	-	-	3.50
5/6/1997	1,930	1,050	97.0	48.0	220.0	2.0	340.0	190.0	360.0	3.30
5/14/1997	-	-	-	-	-	-	-	-	-	3.40
5/21/1997	-	-	-	-	-	-	-	-	-	3.30
6/4/1997	-	-	-	-	-	-	-	-	-	3.30
6/11/1997	-	-	-	-	-	-	-	-	-	3.30
6/18/1997	-	-	-	-	-	-	-	-	-	3.30
6/25/1997	-	-	-	-	-	-	-	-	-	3.30
7/2/1997	-	-	-	-	-	-	-	-	-	3.30
9/17/1997	1,960	1,260	-	-	-	-	430.0	220.0	-	2.94
No. 138										
10/30/1990	460	240	19.0	2.0	74.0	2.0	71.0	13.0	113.0	4.07
10/6/1993	420	240	11.0	ND	70.0	1.0	56.0	10.0	92.0	3.17
10/11/1996	430	270	9.0	ND	78.0	1.0	55.0	8.9	100.0	3.39
4/14/1999	-	-	-	-	-	-	-	-	-	1.13
6/3/1999	-	-	-	-	-	-	-	-	-	0.68
10/26/1999	430	240	10.0	ND	76.0	1.0	60.0	11.0	100.0	4.30
3/13/2000	-	-	-	-	-	-	-	-	-	1.13
3/22/2001	-	-	-	-	-	-	-	-	-	3.85
3/13/2002	-	-	-	-	-	-	-	-	-	4.75
6/20/2002	-	-	-	-	-	-	-	-	-	3.62
10/2/2002	440	220	10.0	ND	75.0	1.2	58.0	7.8	96.0	3.85
6/12/2003	-	-	-	-	-	-	-	-	-	3.62
12/30/2004	-	-	-	-	-	-	-	-	-	1.13
1/27/2005	-	-	-	-	-	-	-	-	-	2.71
10/18/2005	430	280	11.0	ND	72.0	1.3	65.0	8.3	110.0	4.07
1/6/2006	-	-	-	-	-	-	-	-	-	3.85
1/10/2007	-	-	-	-	-	-	-	-	-	3.62
1/8/2008	-	-	-	-	-	-	-	-	-	3.62
10/8/2008	430	220	12.0	59.0	82.0	1.1	59.0	11.0	32.0	4.07
1/8/2009	-	-	-	-	-	-	-	-	-	4.07
1/12/2009	-	280	-	-	-	-	-	-	-	-
4/8/2009	-	250	-	-	-	-	-	-	-	-
7/6/2009	-	240	-	-	-	-	-	-	-	-
1/6/2010	-	250	-	-	-	-	-	-	-	3.62

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4/8/2010	-	270	-	-	-	-	-	-	-	-
7/14/2010	-	260	-	-	-	-	-	-	-	-
10/5/2010	-	230	-	-	-	-	-	-	-	-
1/12/2011	-	190	-	-	-	-	-	-	-	3.85
4/6/2011	-	290	-	-	-	-	-	-	-	-
7/7/2011	-	250	-	-	-	-	-	-	-	-
10/4/2011	440	240	10.0	1.0	78.0	1.9	62.0	10.0	110.0	3.85
1/17/2012	-	260	-	-	-	-	-	-	-	3.62
4/3/2012	-	280	-	-	-	-	-	-	-	-
10/2/2012	-	290	-	-	-	-	-	-	-	-
1/3/2013	-	240	-	-	-	-	-	-	-	3.17
4/3/2013	-	230	-	-	-	-	-	-	-	-
7/2/2013	-	220	-	-	-	-	-	-	-	-
10/10/2013	-	230	-	-	-	-	-	-	-	-
1/7/2014	-	220	-	-	-	-	-	-	-	3.62
4/22/2014	-	220	-	-	-	-	-	-	-	-
7/9/2014	-	260	-	-	-	-	-	-	-	-
10/2/2014	430	260	10.0	ND	81.0	1.2	67.0	11.0	110.0	3.62
1/14/2015	-	210	-	-	-	-	-	-	-	3.85
4/9/2015	-	260	-	-	-	-	-	-	-	-
7/2/2015	-	240	-	-	-	-	-	-	-	-
10/8/2015	-	250	-	-	-	-	-	-	-	-
1/12/2016	-	260	-	-	-	-	-	-	-	2.90
4/5/2016	-	290	-	-	-	-	-	-	-	-
7/12/2016	-	280	-	-	-	-	-	-	-	-
10/4/2016	-	260	-	-	-	-	-	-	-	-
1/4/2017	-	220	-	-	-	-	-	-	-	3.80
4/11/2017	-	260	-	-	-	-	-	-	-	-
7/6/2017	-	250	-	-	-	-	-	-	-	-
10/11/2017	470	260	11.0	ND	82.0	1.3	68.0	11.0	86.0	3.30
1/5/2018	-	270	-	-	-	-	-	-	-	3.50
4/11/2018	-	270	-	-	-	-	-	-	-	-
7/19/2018	-	260	-	-	-	-	-	-	-	-
10/5/2018	-	270	-	-	-	-	-	-	-	-
1/15/2019	-	270	-	-	-	-	-	-	-	4.10
4/3/2019	-	270	-	-	-	-	-	-	-	-
7/11/2019	-	260	-	-	-	-	-	-	-	-
10/2/2019	-	220	-	-	-	-	-	-	-	-
1/7/2020	-	270	-	-	-	-	-	-	-	4.10
4/15/2020	-	230	-	-	-	-	-	-	-	-
7/16/2020	-	260	-	-	-	-	-	-	-	-
10/14/2020	450	280	14.0	1.2	81.0	1.6	75.0	13.0	86.0	3.90
1/6/2021	-	270	-	-	-	-	-	-	-	3.70
10/17/2022	-	280	-	-	-	-	-	-	-	3.80
1/17/2023	-	290	-	-	-	-	-	-	-	3.30
No. 139										
12/29/1987	460	295	24.0	7.0	65.0	1.0	60.0	11.0	104.0	1.58
11/23/1992	450	275	32.0	9.0	46.0	2.0	60.0	13.0	134.0	4.52
12/19/1995	500	298	36.0	12.0	50.0	2.0	72.0	12.0	156.0	0.63
3/25/1997	-	-	-	-	-	-	-	-	-	2.26
3/13/2000	-	-	-	-	-	-	-	-	-	2.04
3/28/2001	-	-	-	-	-	-	-	-	-	1.81
3/11/2002	530	280	29.0	10.0	57.0	2.0	73.0	13.0	140.0	2.04
3/9/2004	-	-	-	-	-	-	-	-	-	1.81
3/9/2005	520	310	21.0	7.7	72.0	1.3	78.0	13.0	150.0	1.36
3/9/2006	-	-	-	-	-	-	-	-	-	2.24
3/7/2007	-	-	-	-	-	-	-	-	-	1.56
4/15/2008	550	340	40.0	14.0	43.0	1.9	80.0	10.0	150.0	3.17
7/17/2008	-	330	-	-	-	-	-	-	-	-
10/8/2008	-	320	-	-	-	-	-	-	-	-
1/13/2009	-	390	-	-	-	-	-	-	-	-
4/8/2009	-	310	-	-	-	-	-	-	-	1.31
7/6/2009	-	290	-	-	-	-	-	-	-	-
5/17/2010	-	320	-	-	-	-	-	-	-	-
8/9/2010	-	340	-	-	-	-	-	-	-	-
10/21/2010	-	-	-	-	-	-	-	-	-	2.01
11/3/2010	-	290	-	-	-	-	-	-	-	-

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2/9/2011	-	340	-	-	-	-	-	-	-	-
4/21/2011	570	340	39.0	15.0	45.0	2.3	97.0	16.0	140.0	2.71
5/4/2011	-	340	-	-	-	-	-	-	-	-
7/7/2011	-	350	-	-	-	-	-	-	-	-
8/4/2011	-	320	-	-	-	-	-	-	-	-
10/5/2011	-	-	-	-	-	-	-	-	-	1.38
11/2/2011	-	310	-	-	-	-	-	-	-	-
2/9/2012	-	330	-	-	-	-	-	-	-	-
5/2/2012	-	320	-	-	-	-	-	-	-	-
8/9/2012	-	310	-	-	-	-	-	-	-	-
10/2/2012	-	-	-	-	-	-	-	-	-	1.22
11/2/2012	-	360	-	-	-	-	-	-	-	-
2/7/2013	-	320	-	-	-	-	-	-	-	-
5/2/2013	-	300	-	-	-	-	-	-	-	-
8/13/2013	-	330	-	-	-	-	-	-	-	-
10/10/2013	-	-	-	-	-	-	-	-	-	1.11
11/7/2013	-	340	-	-	-	-	-	-	-	-
2/5/2014	-	310	-	-	-	-	-	-	-	-
4/9/2014	560	370	32.0	13.0	64.0	1.8	92.0	13.0	150.0	1.18
5/20/2014	-	300	-	-	-	-	-	-	-	-
8/7/2014	-	370	-	-	-	-	-	-	-	-
10/1/2014	-	-	-	-	-	-	-	-	-	0.77
11/6/2014	-	310	-	-	-	-	-	-	-	-
2/5/2015	-	320	-	-	-	-	-	-	-	-
5/14/2015	-	320	-	-	-	-	-	-	-	-
8/7/2015	-	320	-	-	-	-	-	-	-	-
10/8/2015	-	-	-	-	-	-	-	-	-	1.45
11/17/2015	-	360	-	-	-	-	-	-	-	-
2/5/2016	-	350	-	-	-	-	-	-	-	-
5/13/2016	-	330	-	-	-	-	-	-	-	-
8/3/2016	-	330	-	-	-	-	-	-	-	-
11/10/2016	-	330	-	-	-	-	-	-	-	-
2/3/2017	-	330	-	-	-	-	-	-	-	1.60
4/11/2017	580	340	34.0	14.0	59.0	2.0	94.0	14.0	120.0	1.30
5/10/2017	-	360	-	-	-	-	-	-	-	-
8/15/2017	-	300	-	-	-	-	-	-	-	-
10/12/2017	-	-	-	-	-	-	-	-	-	1.10
11/2/2017	-	300	-	-	-	-	-	-	-	-
2/15/2018	-	330	-	-	-	-	-	-	-	-
5/8/2018	-	330	-	-	-	-	-	-	-	-
8/10/2018	-	330	-	-	-	-	-	-	-	-
10/5/2018	-	-	-	-	-	-	-	-	-	1.70
11/8/2018	-	300	-	-	-	-	-	-	-	-
2/19/2019	-	330	-	-	-	-	-	-	-	-
5/7/2019	-	310	-	-	-	-	-	-	-	-
7/7/2019	-	290	-	-	-	-	-	-	-	-
8/14/2019	-	310	-	-	-	-	-	-	-	-
10/2/2019	-	-	-	-	-	-	-	-	-	0.89
11/7/2019	-	290	-	-	-	-	-	-	-	-
8/18/2020	540	310	40.0	14.0	52.0	2.0	100.0	14.0	120.0	2.20
10/15/2020	-	-	-	-	-	-	-	-	-	1.50
11/4/2020	-	340	-	-	-	-	-	-	-	-
2/3/2021	-	330	-	-	-	-	-	-	-	-
10/7/2021	-	-	-	-	-	-	-	-	-	1.50
2/4/2022	-	320	-	-	-	-	-	-	-	-
No. 140										
2/18/1988	560	325	33.0	10.0	65.0	2.0	77.0	14.0	153.0	2.94
1/15/1992	450	235	11.0	2.0	88.0	1.0	68.0	18.0	107.0	0.45
2/28/1995	560	325	36.0	11.0	58.0	2.0	94.0	14.0	140.0	2.71
3/25/1997	-	-	-	-	-	-	-	-	-	1.81
2/27/1998	650	360	31.0	11.0	76.0	2.0	95.0	16.0	130.0	1.13
9/17/1998	-	-	-	-	-	-	-	-	-	1.81
2/1/2001	650	370	31.0	12.0	72.0	2.0	110.0	21.0	150.0	0.90
5/16/2001	-	-	-	-	-	-	-	-	-	2.49
5/24/2002	-	-	-	-	-	-	-	-	-	1.58
4/5/2005	680	390	37.0	16.0	69.0	2.3	140.0	18.0	150.0	0.90
4/6/2006	-	-	-	-	-	-	-	-	-	1.00

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Santa Margarita River Watershed
Water Quality Data

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
4/24/2007	-	-	-	-	-	-	-	-	-	0.68
4/8/2008	630	350	26.0	9.5	79.0	1.9	110.0	21.0	140.0	0.61
7/7/2008	-	360	-	-	-	-	-	-	-	-
1/7/2009	-	400	-	-	-	-	-	-	-	-
4/15/2009	-	380	-	-	-	-	-	-	-	1.04
7/6/2009	-	360	-	-	-	-	-	-	-	-
1/6/2010	-	350	-	-	-	-	-	-	-	-
4/8/2010	-	350	-	-	-	-	-	-	-	0.48
7/14/2010	-	360	-	-	-	-	-	-	-	-
10/5/2010	-	350	-	-	-	-	-	-	-	-
1/12/2011	-	280	-	-	-	-	-	-	-	-
4/5/2011	640	360	26.0	9.4	82.0	1.9	100.0	19.0	130.0	0.61
10/5/2011	-	360	-	-	-	-	-	-	-	-
1/17/2012	-	380	-	-	-	-	-	-	-	-
4/3/2012	-	390	-	-	-	-	-	-	-	-
10/2/2012	-	370	-	-	-	-	-	-	-	-
1/21/2014	-	380	-	-	-	-	-	-	-	-
3/12/2014	-	-	-	-	-	-	-	-	-	0.63
4/3/2014	660	330	32.0	12.0	84.0	2.1	120.0	23.0	140.0	0.75
7/8/2014	-	380	-	-	-	-	-	-	-	-
10/1/2014	-	370	-	-	-	-	-	-	-	-
1/20/2015	-	340	-	-	-	-	-	-	-	-
4/9/2015	-	350	-	-	-	-	-	-	-	0.48
7/2/2015	-	360	-	-	-	-	-	-	-	-
10/8/2015	-	330	-	-	-	-	-	-	-	-
1/12/2016	-	330	-	-	-	-	-	-	-	-
4/21/2016	-	330	-	-	-	-	-	-	-	0.42
7/12/2016	-	400	-	-	-	-	-	-	-	-
8/4/2016	-	-	-	-	-	-	-	-	-	0.45
10/4/2016	-	350	-	-	-	-	-	-	-	-
4/11/2017	620	340	23.0	7.9	89.0	1.6	110.0	22.0	110.0	0.32
7/14/2017	-	310	-	-	-	-	-	-	-	-
10/4/2017	-	350	-	-	-	-	-	-	-	-
1/18/2018	-	320	-	-	-	-	-	-	-	-
4/9/2018	-	310	-	-	-	-	-	-	-	ND
7/19/2018	-	330	-	-	-	-	-	-	-	-
10/16/2018	-	320	-	-	-	-	-	-	-	-
1/10/2019	-	330	-	-	-	-	-	-	-	-
4/4/2019	-	310	-	-	-	-	-	-	-	ND
12/6/2019	-	270	-	-	-	-	-	-	-	-
1/8/2020	-	310	-	-	-	-	-	-	-	-
4/2/2020	600	310	20.0	6.7	92.0	1.3	100.0	23.0	110.0	ND
7/2/2020	-	320	-	-	-	-	-	-	-	-
10/6/2020	-	290	-	-	-	-	-	-	-	-
1/7/2021	-	310	-	-	-	-	-	-	-	-
4/8/2021	-	-	-	-	-	-	-	-	-	0.24
1/11/2022	-	300	-	-	-	-	-	-	-	-
11/29/2022	-	-	-	-	-	-	-	-	-	ND
1/18/2023	-	290	-	-	-	-	-	-	-	-
4/10/2023	580	310	16.0	5.7	94.0	1.5	100.0	24.0	120.0	ND
No. 141										
1/6/1988	780	440	64.0	11.0	82.0	3.0	65.0	91.0	217.0	2.94
1/30/1992	820	500	63.0	13.0	95.0	3.0	79.0	110.0	238.0	4.30
3/30/1995	840	490	58.0	11.0	100.0	3.0	70.0	97.0	241.0	3.17
3/25/1997	-	-	-	-	-	-	-	-	-	3.39
3/26/1998	760	480	62.0	12.0	90.0	3.0	69.0	86.0	230.0	3.62
1/4/1999	-	-	-	-	-	-	-	-	-	3.17
2/12/1999	-	-	-	-	-	-	-	-	-	4.30
10/21/1999	-	-	-	-	-	-	-	-	-	3.85
11/3/1999	-	-	-	-	-	-	-	-	-	3.17
12/14/1999	-	-	-	-	-	-	-	-	-	3.17
6/20/2000	-	-	-	-	-	-	-	-	-	3.39
1/4/2001	700	450	52.0	6.0	84.0	3.0	75.0	70.0	190.0	3.39
9/28/2001	-	-	-	-	-	-	-	-	-	4.07
11/8/2002	-	-	-	-	-	-	-	-	-	3.39
9/16/2003	-	-	-	-	-	-	-	-	-	4.30
1/13/2004	760	490	65.0	11.0	84.0	3.1	70.0	90.0	220.0	4.75

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
1/6/2005	-	-	-	-	-	-	-	-	-	4.07
1/6/2006	-	-	-	-	-	-	-	-	-	3.62
6/4/2008	-	410	-	-	-	-	-	-	-	2.49
12/5/2008	-	480	-	-	-	-	-	-	-	-
3/4/2009	-	440	-	-	-	-	-	-	-	-
6/2/2009	-	390	-	-	-	-	-	-	-	2.26
1/5/2010	760	450	62.0	8.1	84.0	3.5	77.0	68.0	200.0	3.62
3/3/2010	-	480	-	-	-	-	-	-	-	-
6/2/2010	-	400	-	-	-	-	-	-	-	2.94
9/1/2010	-	370	-	-	-	-	-	-	-	-
1/12/2011	-	460	-	-	-	-	-	-	-	-
4/5/2011	-	420	-	-	-	-	-	-	-	-
6/7/2011	-	-	-	-	-	-	-	-	-	2.71
7/6/2011	-	360	-	-	-	-	-	-	-	-
10/11/2011	-	420	-	-	-	-	-	-	-	-
1/10/2012	-	400	-	-	-	-	-	-	-	-
4/3/2012	-	510	-	-	-	-	-	-	-	-
6/5/2012	-	-	-	-	-	-	-	-	-	2.71
10/9/2012	-	400	-	-	-	-	-	-	-	-
1/3/2013	830	490	70.0	10.0	89.0	3.6	80.0	81.0	220.0	3.85
4/17/2013	-	460	-	-	-	-	-	-	-	-
6/6/2013	-	-	-	-	-	-	-	-	-	2.94
7/9/2013	-	450	-	-	-	-	-	-	-	-
10/8/2013	-	390	-	-	-	-	-	-	-	-
1/28/2014	-	520	-	-	-	-	-	-	-	-
4/9/2014	-	420	-	-	-	-	-	-	-	-
6/3/2014	-	-	-	-	-	-	-	-	-	3.62
7/9/2014	-	400	-	-	-	-	-	-	-	-
10/2/2014	-	410	-	-	-	-	-	-	-	-
1/21/2015	-	600	-	-	-	-	-	-	-	-
4/8/2015	-	400	-	-	-	-	-	-	-	-
6/3/2015	-	-	-	-	-	-	-	-	-	2.94
7/7/2015	-	420	-	-	-	-	-	-	-	-
10/22/2015	-	500	-	-	-	-	-	-	-	-
1/13/2016	810	480	66.0	8.1	87.0	3.4	81.0	89.0	210.0	4.10
4/13/2016	-	490	-	-	-	-	-	-	-	-
6/7/2016	-	-	-	-	-	-	-	-	-	-
7/13/2016	-	400	-	-	-	-	-	-	-	-
10/6/2016	-	390	-	-	-	-	-	-	-	-
1/17/2017	-	550	-	-	-	-	-	-	-	-
4/6/2017	-	410	-	-	-	-	-	-	-	-
6/8/2017	-	-	-	-	-	-	-	-	-	3.10
7/5/2017	-	390	-	-	-	-	-	-	-	-
10/4/2017	-	430	-	-	-	-	-	-	-	-
1/5/2018	-	470	-	-	-	-	-	-	-	-
4/11/2018	-	460	-	-	-	-	-	-	-	-
6/12/2018	-	-	-	-	-	-	-	-	-	3.10
7/18/2018	-	490	-	-	-	-	-	-	-	-
10/9/2018	-	440	-	-	-	-	-	-	-	-
4/26/2019	-	530	-	-	-	-	-	-	-	-
5/15/2019	800	480	66.0	9.0	91.0	3.3	81.0	92.0	180.0	4.80
6/18/2019	-	-	-	-	-	-	-	-	-	3.40
7/10/2019	-	360	-	-	-	-	-	-	-	-
10/14/2019	-	370	-	-	-	-	-	-	-	-
1/16/2020	-	480	-	-	-	-	-	-	-	-
4/15/2020	-	480	-	-	-	-	-	-	-	-
6/4/2020	-	-	-	-	-	-	-	-	-	3.20
7/2/2020	-	370	-	-	-	-	-	-	-	-
10/12/2020	-	420	-	-	-	-	-	-	-	-
1/12/2021	-	370	-	-	-	-	-	-	-	-
6/3/2021	-	-	-	-	-	-	-	-	-	3.30
1/11/2022	-	770	61.0	7.4	85.0	3.4	84.0	89.0	170.0	5.10
6/7/2022	-	-	-	-	-	-	-	-	-	3.10
1/17/2023	-	490	-	-	-	-	-	-	-	-
6/7/2023	-	-	-	-	-	-	-	-	-	11.00
6/13/2023	-	-	-	-	-	-	-	-	-	3.30
6/16/2023	-	-	-	-	-	-	-	-	-	5.50
9/7/2023	-	-	-	-	-	-	-	-	-	3.40

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No. 143										
1/15/1988	670	345	8.0	2.0	134.0	1.0	91.0	57.0	95.0	2.49
10/17/1990	660	345	25.0	4.0	112.0	2.0	89.0	62.0	140.0	2.71
3/3/1994	690	370	24.0	3.0	114.0	2.0	93.0	68.0	131.0	2.49
3/30/1995	-	-	-	-	-	-	-	-	-	2.49
3/25/1997	600	330	15.0	2.0	110.0	1.0	87.0	44.0	89.0	2.04
7/18/1997	-	-	-	-	-	-	-	-	-	2.00
7/23/1997	-	-	-	-	-	-	-	-	-	2.00
8/20/1997	-	-	-	-	-	-	-	-	-	2.30
9/3/1997	-	-	-	-	-	-	-	-	-	2.20
9/17/1997	-	-	-	-	-	-	-	-	-	2.00
9/17/1998	-	-	-	-	-	-	-	-	-	2.30
10/21/1999	-	-	-	-	-	-	-	-	-	2.94
3/7/2000	730	400	21.0	3.0	120.0	2.0	84.0	68.0	140.0	2.71
10/13/2000	-	-	-	-	-	-	-	-	-	1.81
10/10/2001	-	-	-	-	-	-	-	-	-	1.81
11/19/2002	-	-	-	-	-	-	-	-	-	2.26
1/13/2003	-	-	-	-	-	-	-	-	-	2.10
3/10/2003	650	370	14.0	1.9	110.0	1.0	92.0	52.0	130.0	2.26
1/7/2004	-	-	-	-	-	-	-	-	-	2.71
1/18/2005	-	-	-	-	-	-	-	-	-	2.26
1/6/2006	-	-	-	-	-	-	-	-	-	1.97
6/8/2006	560	270	9.5	1.3	100.0	1.0	86.0	ND	100.0	1.63
1/10/2007	-	-	-	-	-	-	-	-	-	1.65

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1/4/2008	-	-	-	-	-	-	-	-	-	1.61
1/8/2009	-	-	-	-	-	-	-	-	-	2.04
2/4/2009	-	300	-	-	-	-	-	-	-	-
5/11/2009	-	290	-	-	-	-	-	-	-	-
8/5/2009	-	300	-	-	-	-	-	-	-	-
1/5/2010	-	-	-	-	-	-	-	-	-	1.47
2/4/2010	-	320	-	-	-	-	-	-	-	-
5/6/2010	-	330	-	-	-	-	-	-	-	-
8/13/2010	-	280	-	-	-	-	-	-	-	-
11/1/2010	-	350	-	-	-	-	-	-	-	-
1/13/2011	-	-	-	-	-	-	-	-	-	2.06
2/9/2011	-	320	-	-	-	-	-	-	-	-
5/4/2011	-	300	-	-	-	-	-	-	-	-
8/3/2011	-	320	-	-	-	-	-	-	-	-
11/2/2011	-	370	-	-	-	-	-	-	-	-
1/6/2012	-	-	-	-	-	-	-	-	-	1.63
2/9/2012	-	300	-	-	-	-	-	-	-	-
5/10/2012	-	300	-	-	-	-	-	-	-	-
6/5/2012	540	320	7.3	1.1	100.0	1.0	73.0	21.0	100.0	1.33
8/7/2012	-	310	-	-	-	-	-	-	-	-
11/1/2012	-	290	-	-	-	-	-	-	-	-
1/3/2013	-	-	-	-	-	-	-	-	-	1.92
2/10/2013	-	360	-	-	-	-	-	-	-	-
5/2/2013	-	290	-	-	-	-	-	-	-	-
8/19/2013	-	330	-	-	-	-	-	-	-	-
11/7/2013	-	290	-	-	-	-	-	-	-	-
1/9/2014	-	-	-	-	-	-	-	-	-	1.45
2/5/2014	-	280	-	-	-	-	-	-	-	-
5/6/2014	-	270	-	-	-	-	-	-	-	-
8/8/2014	-	260	-	-	-	-	-	-	-	-
11/6/2014	-	320	-	-	-	-	-	-	-	-
1/8/2015	-	-	-	-	-	-	-	-	-	2.49
2/4/2015	-	240	-	-	-	-	-	-	-	-
5/7/2015	-	300	-	-	-	-	-	-	-	-
6/2/2015	590	300	6.4	ND	100.0	ND	79.0	25.0	120.0	1.43
8/7/2015	-	270	-	-	-	-	-	-	-	-
11/10/2015	-	330	-	-	-	-	-	-	-	-
1/12/2016	-	-	-	-	-	-	-	-	-	2.30
2/9/2016	-	350	-	-	-	-	-	-	-	-
5/10/2016	-	290	-	-	-	-	-	-	-	-
11/8/2016	-	310	-	-	-	-	-	-	-	-
7/26/2017	-	370	-	-	-	-	-	-	-	-
8/4/2017	-	390	-	-	-	-	-	-	-	-
10/19/2017	-	-	-	-	-	-	-	-	-	1.50
11/8/2017	-	300	-	-	-	-	-	-	-	-
1/18/2018	-	-	-	-	-	-	-	-	-	2.40
2/6/2018	-	340	-	-	-	-	-	-	-	-
5/8/2018	-	320	-	-	-	-	-	-	-	-
6/7/2018	560	300	6.6	ND	110.0	ND	83.0	30.0	100.0	1.20
8/16/2018	-	340	-	-	-	-	-	-	-	-
11/8/2018	-	290	-	-	-	-	-	-	-	-
1/15/2019	-	-	-	-	-	-	-	-	-	2.00
2/19/2019	-	300	-	-	-	-	-	-	-	-
5/1/2019	-	300	-	-	-	-	-	-	-	-
8/20/2019	-	320	-	-	-	-	-	-	-	-
11/14/2019	-	310	-	-	-	-	-	-	-	-
1/8/2020	-	-	-	-	-	-	-	-	-	1.80
2/6/2020	-	320	-	-	-	-	-	-	-	-
5/7/2020	-	310	-	-	-	-	-	-	-	-
8/12/2020	-	320	-	-	-	-	-	-	-	-
1/29/2021	-	-	-	-	-	-	-	-	-	2.50
2/17/2021	-	550	-	-	-	-	-	-	-	-
6/3/2021	570	310	9.4	1.3	110.0	ND	85.0	36.0	88.0	1.50
1/22/2022	-	-	-	-	-	-	-	-	-	2.20
2/3/2022	-	400	-	-	-	-	-	-	-	-
8/23/2022	-	1,200	-	-	-	-	-	-	-	-
9/1/2022	-	330	-	-	-	-	-	-	-	-
1/9/2023	-	-	-	-	-	-	-	-	-	2.20

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
2/7/2023	-	340	-	-	-	-	-	-	-	-
No. 144										
9/14/1988	610	335	8.0	ND	114.0	1.0	95.0	33.0	92.0	ND
12/19/1995	730	420	34.0	1.0	124.0	1.0	120.0	33.0	186.0	ND
12/20/2000	690	400	28.0	1.0	120.0	ND	120.0	35.0	170.0	ND
5/22/2001	-	-	-	-	-	-	-	-	-	ND
8/20/2002	-	-	-	-	-	-	-	-	-	ND
8/27/2003	-	-	-	-	-	-	-	-	-	ND
12/16/2003	630	420	33.0	1.8	110.0	1.0	110.0	28.0	170.0	ND
8/12/2004	-	-	-	-	-	-	-	-	-	ND
10/11/2005	-	-	-	-	-	-	-	-	-	0.45
12/7/2006	670	370	21.0	1.0	98.0	1.2	110.0	27.0	150.0	ND
8/7/2007	-	-	-	-	-	-	-	-	-	ND
8/11/2008	-	320	-	-	-	-	-	-	-	ND
2/9/2009	-	340	-	-	-	-	-	-	-	-
5/8/2009	-	360	-	-	-	-	-	-	-	-
8/5/2009	-	370	-	-	-	-	-	-	-	ND
2/4/2010	-	380	-	-	-	-	-	-	-	-
5/6/2010	-	410	-	-	-	-	-	-	-	-
8/10/2010	-	370	-	-	-	-	-	-	-	ND
11/10/2010	-	400	-	-	-	-	-	-	-	-
2/2/2011	-	340	-	-	-	-	-	-	-	-
5/4/2011	-	350	-	-	-	-	-	-	-	-
8/9/2011	-	340	-	-	-	-	-	-	-	ND
11/2/2011	-	320	-	-	-	-	-	-	-	-
2/8/2012	-	320	-	-	-	-	-	-	-	-
5/3/2012	-	340	-	-	-	-	-	-	-	-
8/9/2012	-	330	-	-	-	-	-	-	-	ND
11/2/2012	-	370	-	-	-	-	-	-	-	-
12/4/2012	660	350	23.0	1.2	110.0	ND	100.0	26.0	150.0	ND
2/6/2013	-	350	-	-	-	-	-	-	-	-
5/3/2013	-	360	-	-	-	-	-	-	-	-
8/14/2013	-	340	-	-	-	-	-	-	-	ND
11/7/2013	-	350	-	-	-	-	-	-	-	-
2/5/2014	-	340	-	-	-	-	-	-	-	-
5/14/2014	-	340	-	-	-	-	-	-	-	-
8/7/2014	-	340	-	-	-	-	-	-	-	ND
11/5/2014	-	370	-	-	-	-	-	-	-	-
2/18/2015	-	380	-	-	-	-	-	-	-	-
5/14/2015	-	310	-	-	-	-	-	-	-	-
8/19/2015	-	380	-	-	-	-	-	-	-	ND
11/18/2015	-	330	-	-	-	-	-	-	-	-
12/9/2015	620	340	20.0	1.1	110.0	ND	110.0	30.0	130.0	ND
2/10/2016	-	460	-	-	-	-	-	-	-	-
5/5/2016	-	350	-	-	-	-	-	-	-	-
8/2/2016	-	350	-	-	-	-	-	-	-	ND
11/8/2016	-	350	-	-	-	-	-	-	-	-
2/2/2017	-	360	-	-	-	-	-	-	-	-
5/3/2017	-	340	-	-	-	-	-	-	-	-
8/9/2017	-	340	-	-	-	-	-	-	-	ND
11/2/2017	-	360	-	-	-	-	-	-	-	-
9/12/2018	-	380	-	-	-	-	-	-	-	ND
11/14/2018	-	300	-	-	-	-	-	-	-	-
12/17/2018	650	560	30.0	2.0	100.0	1.2	120.0	30.0	130.0	ND
2/19/2019	-	360	-	-	-	-	-	-	-	-
5/2/2019	-	350	-	-	-	-	-	-	-	-
8/26/2019	-	360	-	-	-	-	-	-	-	0.05
11/8/2019	-	360	-	-	-	-	-	-	-	-
2/11/2020	-	360	-	-	-	-	-	-	-	-
7/1/2020	-	350	-	-	-	-	-	-	-	-
8/7/2020	-	350	-	-	-	-	-	-	-	ND
11/4/2020	-	360	-	-	-	-	-	-	-	-
No. 145										
10/4/1990	800	490	43.0	8.0	110.0	2.0	110.0	78.0	171.0	ND
10/6/1993	650	375	23.0	3.0	106.0	1.0	85.0	58.0	146.0	ND
11/27/1996	650	340	26.0	2.0	110.0	1.0	87.0	48.0	150.0	ND

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
2/4/1997	670	370	24.0	2.0	110.0	1.0	87.0	55.0	160.0	ND
1/28/1998	-	-	-	-	-	-	-	-	-	ND

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Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
1/4/1999	-	-	-	-	-	-	-	-	-	ND
10/26/1999	690	400	29.0	3.0	110.0	1.0	96.0	61.0	170.0	ND
1/6/2000	-	-	-	-	-	-	-	-	-	ND
1/25/2001	-	-	-	-	-	-	-	-	-	ND
1/18/2002	-	-	-	-	-	-	-	-	-	ND
10/9/2002	690	390	26.0	2.3	110.0	1.2	94.0	52.0	160.0	ND
1/15/2003	-	-	-	-	-	-	-	-	-	ND
1/7/2004	-	-	-	-	-	-	-	-	-	ND
1/13/2005	-	-	-	-	-	-	-	-	-	ND
10/11/2005	680	430	33.0	2.7	120.0	1.4	100.0	54.0	180.0	ND
10/18/2005	700	440	34.0	2.8	120.0	1.5	100.0	59.0	180.0	ND
4/13/2006	-	-	-	-	-	-	-	-	-	ND
1/19/2007	-	-	-	-	-	-	-	-	-	ND
1/4/2008	-	-	-	-	-	-	-	-	-	ND
8/11/2008	-	360	-	-	-	-	-	-	-	-
10/8/2008	720	400	37.0	3.2	100.0	1.3	95.0	56.0	150.0	ND
1/6/2009	-	-	-	-	-	-	-	-	-	ND
2/3/2009	-	390	-	-	-	-	-	-	-	-
5/8/2009	-	410	-	-	-	-	-	-	-	-
8/5/2009	-	400	-	-	-	-	-	-	-	-
1/7/2010	-	-	-	-	-	-	-	-	-	ND
2/4/2010	-	400	-	-	-	-	-	-	-	-
5/7/2010	-	470	-	-	-	-	-	-	-	-
8/10/2010	-	390	-	-	-	-	-	-	-	-
11/10/2010	-	410	-	-	-	-	-	-	-	-
1/12/2011	-	-	-	-	-	-	-	-	-	ND
2/9/2011	-	390	-	-	-	-	-	-	-	-
5/5/2011	-	380	-	-	-	-	-	-	-	-
8/4/2011	-	360	-	-	-	-	-	-	-	-
10/5/2011	670	380	28.0	2.6	110.0	1.6	100.0	49.0	160.0	ND
11/10/2011	-	400	-	-	-	-	-	-	-	-
1/12/2012	-	-	-	-	-	-	-	-	-	ND
2/8/2012	-	510	-	-	-	-	-	-	-	-
5/17/2012	-	440	-	-	-	-	-	-	-	-
8/9/2012	-	410	-	-	-	-	-	-	-	-
11/6/2012	-	600	-	-	-	-	-	-	-	-
1/16/2013	-	-	-	-	-	-	-	-	-	ND
2/7/2013	-	400	-	-	-	-	-	-	-	-
5/3/2013	-	390	-	-	-	-	-	-	-	-
8/14/2013	-	370	-	-	-	-	-	-	-	-
11/7/2013	-	390	-	-	-	-	-	-	-	-
1/28/2014	-	-	-	-	-	-	-	-	-	ND
2/11/2014	-	350	-	-	-	-	-	-	-	-
5/21/2014	-	440	-	-	-	-	-	-	-	-
8/19/2014	-	370	-	-	-	-	-	-	-	-
10/9/2014	690	400	42.0	0.0	110.0	1.4	100.0	55.0	180.0	ND
11/14/2014	-	440	-	-	-	-	-	-	-	-
1/27/2015	-	-	-	-	-	-	-	-	-	ND
2/18/2015	-	420	-	-	-	-	-	-	-	-
5/19/2015	-	460	-	-	-	-	-	-	-	-
8/6/2015	-	390	-	-	-	-	-	-	-	-
11/18/2015	-	390	-	-	-	-	-	-	-	-
4/19/2016	-	430	-	-	-	-	-	-	-	-
5/13/2016	-	400	-	-	-	-	-	-	-	-
8/3/2016	-	410	-	-	-	-	-	-	-	-
11/9/2016	-	400	-	-	-	-	-	-	-	ND
1/25/2017	-	-	-	-	-	-	-	-	-	ND
2/9/2017	-	430	-	-	-	-	-	-	-	-
5/3/2017	-	420	-	-	-	-	-	-	-	-
5/22/2018	-	410	-	-	-	-	-	-	-	-
5/23/2018	720	410	36.0	5.7	100.0	1.5	100.0	54.0	170.0	ND
11/6/2018	-	390	-	-	-	-	-	-	-	-
1/22/2019	-	-	-	-	-	-	-	-	-	ND
2/19/2019	-	380	-	-	-	-	-	-	-	-
5/2/2019	-	400	-	-	-	-	-	-	-	-
8/21/2019	-	400	-	-	-	-	-	-	-	-
11/8/2019	-	420	-	-	-	-	-	-	-	-
1/8/2020	-	-	-	-	-	-	-	-	-	ND

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2/12/2020	-	400	-	-	-	-	-	-	-	-
5/14/2020	-	400	-	-	-	-	-	-	-	-
8/7/2020	-	390	-	-	-	-	-	-	-	-
12/10/2020	-	400	-	-	-	-	-	-	-	-
1/7/2021	710	400	35.0	5.3	110.0	1.2	100.0	54.0	150.0	ND
2/9/2021	-	400	-	-	-	-	-	-	-	-
1/13/2022	-	-	-	-	-	-	-	-	-	ND
2/2/2022	-	370	-	-	-	-	-	-	-	-
1/17/2023	-	-	-	-	-	-	-	-	-	ND
2/16/2023	-	400	-	-	-	-	-	-	-	-
No. 146										
12/10/1996	900	500	57.0	23.0	98.0	ND	100.0	64.0	280.0	3.39
3/2/2000	-	-	-	-	-	-	-	-	-	0.90
No. 149										
6/15/1993	-	-	-	-	-	-	-	-	-	1.13
10/10/2001	-	-	-	-	-	-	-	-	-	0.90
3/11/2002	1,040	610	61.0	23.0	120.0	4.0	100.0	170.0	250.0	0.90
12/11/2002	-	-	-	-	-	-	-	-	-	0.72
1/23/2003	-	-	-	-	-	-	-	-	-	0.90
3/12/2003	1,000	600	59.0	22.0	120.0	3.7	100.0	170.0	230.0	0.68
1/13/2004	-	-	-	-	-	-	-	-	-	0.90
1/11/2006	-	-	-	-	-	-	-	-	-	0.57
3/9/2006	940	580	56.0	21.0	110.0	3.8	87.0	160.0	220.0	0.61
1/24/2007	-	-	-	-	-	-	-	-	-	0.54
3/11/2008	-	550	-	-	-	-	-	-	-	-
7/8/2008	-	590	-	-	-	-	-	-	-	-
1/8/2009	-	590	-	-	-	-	-	-	-	0.59
3/4/2009	900	590	52.0	20.0	100.0	3.6	93.0	170.0	210.0	0.57
4/2/2009	-	570	-	-	-	-	-	-	-	-
7/13/2009	-	560	-	-	-	-	-	-	-	-
1/7/2010	-	570	-	-	-	-	-	-	-	0.59
4/8/2010	-	570	-	-	-	-	-	-	-	-
5/12/2011	-	570	-	-	-	-	-	-	-	0.45
8/3/2011	-	600	-	-	-	-	-	-	-	-
11/9/2011	-	620	-	-	-	-	-	-	-	-
2/9/2012	-	580	-	-	-	-	-	-	-	-
3/2/2012	970	600	59.0	20.0	99.0	4.4	95.0	180.0	190.0	0.52
5/3/2012	-	600	-	-	-	-	-	-	-	0.45
8/8/2012	-	610	-	-	-	-	-	-	-	-
11/1/2012	-	620	-	-	-	-	-	-	-	-
2/10/2013	-	600	-	-	-	-	-	-	-	-
5/14/2013	-	610	-	-	-	-	-	-	-	0.41
8/15/2013	-	580	-	-	-	-	-	-	-	-
11/6/2013	-	560	-	-	-	-	-	-	-	-
2/6/2014	-	580	-	-	-	-	-	-	-	-
5/8/2014	-	620	-	-	-	-	-	-	-	1.09
8/7/2014	-	560	-	-	-	-	-	-	-	-
11/6/2014	-	550	-	-	-	-	-	-	-	-
2/5/2015	-	570	-	-	-	-	-	-	-	-
3/11/2015	910	580	55.0	22.0	110.0	3.8	90.0	160.0	190.0	0.48
5/15/2015	-	630	-	-	-	-	-	-	-	0.45
8/4/2015	-	560	-	-	-	-	-	-	-	-
11/17/2015	-	590	-	-	-	-	-	-	-	-
2/5/2016	-	570	-	-	-	-	-	-	-	-
11/22/2016	-	550	-	-	-	-	-	-	-	0.45
2/9/2017	-	580	-	-	-	-	-	-	-	-
6/15/2017	-	540	-	-	-	-	-	-	-	0.39
8/16/2017	-	560	-	-	-	-	-	-	-	-
11/9/2017	-	570	-	-	-	-	-	-	-	-
2/9/2018	-	570	-	-	-	-	-	-	-	-
3/15/2018	960	590	59.0	22.0	110.0	4.1	96.0	170.0	160.0	0.37
5/4/2018	-	590	-	-	-	-	-	-	-	0.46
8/16/2018	-	620	-	-	-	-	-	-	-	-
11/8/2018	-	590	-	-	-	-	-	-	-	-
2/19/2019	-	580	-	-	-	-	-	-	-	-
5/2/2019	-	610	-	-	-	-	-	-	-	0.35

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8/14/2019	-	600	-	-	-	-	-	-	-	-
11/14/2019	-	560	-	-	-	-	-	-	-	-
2/13/2020	-	570	-	-	-	-	-	-	-	-
5/13/2020	-	560	-	-	-	-	-	-	-	0.38
8/13/2020	-	580	-	-	-	-	-	-	-	-
11/10/2020	-	530	-	-	-	-	-	-	-	-
3/3/2021	900	560	60.0	22.0	110.0	3.9	93.0	160.0	160.0	0.38
5/7/2021	-	-	-	-	-	-	-	-	-	0.45
3/15/2022	-	530	-	-	-	-	-	-	-	-
5/5/2022	-	-	-	-	-	-	-	-	-	0.38
3/23/2023	-	520	-	-	-	-	-	-	-	-
5/4/2023	-	-	-	-	-	-	-	-	-	0.46
No. 149A										
8/26/1988	950	540	71.0	211.0	96.0	1.0	115.0	47.0	302.0	4.07
10/31/1991	800	480	36.0	13.0	122.0	3.0	93.0	110.0	195.0	-
No. 150										
9/29/1988	1,950	1,235	134.0	29.0	225.0	2.0	290.0	220.0	390.0	3.39
12/21/1991	1,000	590	74.0	17.0	108.0	4.0	130.0	110.0	207.0	-
No. 151										
7/25/1991	860	485	53.0	16.0	103.0	4.0	90.0	130.0	183.0	-
7/28/1991	730	400	39.0	12.0	100.0	3.0	91.0	58.0	177.0	-
7/29/1991	600	340	9.0	2.0	122.0	5.0	63.0	34.0	204.0	-
10/17/1991	510	295	3.0	ND	118.0	1.0	45.0	10.0	137.0	-
8/10/1994	550	340	3.0	ND	110.0	1.0	59.0	22.0	119.0	ND
6/16/1997	-	-	-	-	-	-	-	-	-	ND
8/14/1997	540	300	2.0	ND	110.0	ND	44.0	10.0	160.0	ND
9/16/1998	-	-	-	-	-	-	-	-	-	ND
1/6/2000	510	300	1.0	ND	110.0	ND	33.0	4.6	180.0	ND
1/6/2005	-	-	-	-	-	-	-	-	-	ND
5/12/2009	530	380	1.4	1.0	110.0	ND	36.0	7.7	140.0	ND
5/5/2010	-	-	-	-	-	-	-	-	-	ND
10/28/2010	-	290	-	-	-	-	-	-	-	-
12/1/2010	-	290	-	-	-	-	-	-	-	-
3/9/2011	-	310	-	-	-	-	-	-	-	-
5/3/2011	-	-	-	-	-	-	-	-	-	ND
6/2/2011	-	280	-	-	-	-	-	-	-	-
9/6/2011	-	310	-	-	-	-	-	-	-	-
12/6/2011	-	300	-	-	-	-	-	-	-	-
3/5/2012	-	290	-	-	-	-	-	-	-	-
5/2/2012	490	300	1.3	ND	110.0	ND	38.0	4.2	180.0	ND
6/5/2012	-	240	-	-	-	-	-	-	-	-
9/4/2012	-	300	-	-	-	-	-	-	-	-
12/3/2012	-	290	-	-	-	-	-	-	-	-
3/6/2013	-	260	-	-	-	-	-	-	-	-
5/1/2013	-	-	-	-	-	-	-	-	-	ND
6/5/2013	-	260	-	-	-	-	-	-	-	-
9/3/2013	-	280	-	-	-	-	-	-	-	-
1/29/2014	-	340	-	-	-	-	-	-	-	-
3/13/2014	-	280	-	-	-	-	-	-	-	-
5/1/2014	-	-	-	-	-	-	-	-	-	ND
6/2/2014	-	290	-	-	-	-	-	-	-	-
9/3/2014	-	280	-	-	-	-	-	-	-	-
12/1/2014	-	250	-	-	-	-	-	-	-	-
3/3/2015	-	340	-	-	-	-	-	-	-	-
5/5/2015	500	280	1.3	ND	110.0	ND	38.0	3.8	170.0	ND
6/1/2015	-	290	-	-	-	-	-	-	-	-
9/2/2015	-	290	-	-	-	-	-	-	-	-
12/1/2015	-	260	-	-	-	-	-	-	-	-
3/1/2016	-	290	-	-	-	-	-	-	-	-
6/21/2016	-	270	-	-	-	-	-	-	-	ND
11/22/2016	-	-	-	-	-	-	-	-	-	ND
12/5/2016	-	280	-	-	-	-	-	-	-	-
3/3/2017	-	270	-	-	-	-	-	-	-	-
5/2/2017	-	-	-	-	-	-	-	-	-	ND
6/7/2017	-	290	-	-	-	-	-	-	-	-

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
9/5/2017	-	270	-	-	-	-	-	-	-	-
12/4/2017	-	290	-	-	-	-	-	-	-	-
3/13/2018	-	280	-	-	-	-	-	-	-	-
5/3/2018	480	300	1.3	ND	110.0	ND	42.0	4.5	160.0	ND
6/4/2018	-	290	-	-	-	-	-	-	-	-
9/4/2018	-	290	-	-	-	-	-	-	-	-
12/3/2018	-	280	-	-	-	-	-	-	-	-
3/5/2019	-	290	-	-	-	-	-	-	-	-
5/6/2019	-	-	-	-	-	-	-	-	-	ND
6/5/2019	-	300	-	-	-	-	-	-	-	-
9/9/2019	-	300	-	-	-	-	-	-	-	-
12/2/2019	-	300	-	-	-	-	-	-	-	-
3/3/2020	-	270	-	-	-	-	-	-	-	-
5/4/2020	-	-	-	-	-	-	-	-	-	ND
6/1/2020	-	280	-	-	-	-	-	-	-	-
9/2/2020	-	270	-	-	-	-	-	-	-	-
12/3/2020	-	300	-	-	-	-	-	-	-	-
3/2/2021	-	290	-	-	-	-	-	-	-	-
5/6/2021	500	300	1.3	ND	120.0	ND	41.0	4.7	130.0	ND
3/3/2022	-	280	-	-	-	-	-	-	-	-
5/3/2022	-	-	-	-	-	-	-	-	-	ND
No. 152										
1/11/2002	860	550	64.0	20.0	77.0	6.0	75.0	190.0	160.0	ND
1/8/2003	-	-	-	-	-	-	-	-	-	ND
1/7/2004	-	-	-	-	-	-	-	-	-	ND
1/24/2005	850	510	71.0	25.0	77.0	4.6	85.0	190.0	160.0	ND
1/4/2006	-	-	-	-	-	-	-	-	-	0.25
1/10/2007	-	-	-	-	-	-	-	-	-	ND
4/8/2008	-	510	-	-	-	-	-	-	-	-
1/2/2009	-	580	-	-	-	-	-	-	-	ND
4/6/2009	-	620	-	-	-	-	-	-	-	-
7/13/2009	-	610	-	-	-	-	-	-	-	-
1/6/2010	-	740	-	-	-	-	-	-	-	0.38
4/19/2010	-	670	-	-	-	-	-	-	-	-
7/8/2010	-	620	-	-	-	-	-	-	-	-
10/7/2010	-	580	-	-	-	-	-	-	-	-
1/11/2011	-	710	-	-	-	-	-	-	-	0.86
4/13/2011	-	490	-	-	-	-	-	-	-	-
7/12/2011	-	460	-	-	-	-	-	-	-	-
10/6/2011	-	420	-	-	-	-	-	-	-	-
1/11/2012	-	270	-	-	-	-	-	-	-	ND
4/12/2012	-	330	-	-	-	-	-	-	-	-
10/10/2012	-	420	-	-	-	-	-	-	-	-
11/28/2012	760	590	54.0	20.0	70.0	5.2	80.0	110.0	170.0	0.32
1/9/2013	-	530	-	-	-	-	-	-	-	0.41
4/11/2013	-	380	-	-	-	-	-	-	-	-
7/10/2013	-	530	-	-	-	-	-	-	-	-
10/16/2013	-	540	-	-	-	-	-	-	-	-
1/16/2014	850	540	65.0	24.0	77.0	4.7	74.0	180.0	140.0	ND
4/2/2014	-	510	-	-	-	-	-	-	-	-
7/3/2014	-	550	-	-	-	-	-	-	-	-
10/9/2014	-	520	-	-	-	-	-	-	-	-
1/13/2015	-	620	-	-	-	-	-	-	-	0.27
4/21/2015	-	620	-	-	-	-	-	-	-	-
7/15/2015	-	580	-	-	-	-	-	-	-	-
10/21/2015	-	650	-	-	-	-	-	-	-	-
1/14/2016	-	960	-	-	-	-	-	-	-	0.50
4/20/2016	-	570	-	-	-	-	-	-	-	-
7/19/2016	-	660	-	-	-	-	-	-	-	-
10/26/2016	-	620	-	-	-	-	-	-	-	-
1/18/2017	1,100	640	73.0	27.0	100.0	5.2	99.0	220.0	170.0	0.27
4/11/2017	-	480	-	-	-	-	-	-	-	-
7/6/2017	-	260	-	-	-	-	-	-	-	-
10/12/2017	-	350	-	-	-	-	-	-	-	-
1/17/2018	-	330	-	-	-	-	-	-	-	0.28
4/12/2018	-	370	-	-	-	-	-	-	-	-
7/12/2018	-	480	-	-	-	-	-	-	-	-

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
10/4/2018	-	500	-	-	-	-	-	-	-	-
1/10/2019	-	540	-	-	-	-	-	-	-	0.23
4/5/2019	-	540	-	-	-	-	-	-	-	-
6/3/2019	-	410	-	-	-	-	-	-	-	-
7/11/2019	-	370	-	-	-	-	-	-	-	-
10/15/2019	-	350	-	-	-	-	-	-	-	-
1/2/2020	580	330	44.0	14.0	56.0	3.2	69.0	79.0	120.0	ND
4/14/2020	-	360	-	-	-	-	-	-	-	-
7/15/2020	-	410	-	-	-	-	-	-	-	-
10/13/2020	-	510	-	-	-	-	-	-	-	-
1/6/2021	-	560	-	-	-	-	-	-	-	ND
1/5/2022	-	550	-	-	-	-	-	-	-	0.31
1/11/2023	940	620	73.0	25.0	91.0	4.6	110.0	200.0	150.0	0.36
No. 153										
12/29/1993	804	485	53.0	18.0	92.0	5.0	86.0	120.0	214.0	ND
4/13/1999	880	540	63.0	23.0	79.0	5.0	68.0	220.0	150.0	ND
4/11/2000	-	-	-	-	-	-	-	-	-	0.45
6/14/2001	-	-	-	-	-	-	-	-	-	ND
4/2/2002	820	500	63.0	22.0	75.0	4.2	80.0	190.0	140.0	ND
4/14/2005	700	410	44.0	17.0	65.0	3.0	76.0	110.0	140.0	0.68
4/4/2006	-	-	-	-	-	-	-	-	-	0.52
4/4/2007	-	-	-	-	-	-	-	-	-	ND
4/8/2008	920	560	62.0	23.0	79.0	4.3	100.0	170.0	170.0	0.43
1/2/2009	-	570	-	-	-	-	-	-	-	-
4/6/2009	-	610	-	-	-	-	-	-	-	ND
7/13/2009	-	590	-	-	-	-	-	-	-	-
1/6/2010	-	560	-	-	-	-	-	-	-	-
4/8/2010	-	610	-	-	-	-	-	-	-	0.23
7/8/2010	-	590	-	-	-	-	-	-	-	-
10/7/2010	-	540	-	-	-	-	-	-	-	-
1/11/2011	-	640	-	-	-	-	-	-	-	-
4/13/2011	850	520	45.0	17.0	93.0	3.8	92.0	130.0	170.0	0.45
7/12/2011	-	450	-	-	-	-	-	-	-	-
10/6/2011	-	380	-	-	-	-	-	-	-	-
1/11/2012	-	280	-	-	-	-	-	-	-	-
4/12/2012	-	300	-	-	-	-	-	-	-	ND
10/10/2012	-	390	-	-	-	-	-	-	-	-
1/9/2013	-	420	-	-	-	-	-	-	-	-
4/11/2013	-	390	-	-	-	-	-	-	-	ND
7/10/2013	-	470	-	-	-	-	-	-	-	-
10/16/2013	-	540	-	-	-	-	-	-	-	-
1/15/2014	-	550	-	-	-	-	-	-	-	-
4/2/2014	880	560	62.0	23.0	80.0	4.2	78.0	180.0	150.0	ND
7/3/2014	-	550	-	-	-	-	-	-	-	-
10/9/2014	-	520	-	-	-	-	-	-	-	-
1/13/2015	-	600	-	-	-	-	-	-	-	-
4/21/2015	-	580	-	-	-	-	-	-	-	0.29
7/15/2015	-	600	-	-	-	-	-	-	-	-
10/21/2015	-	680	-	-	-	-	-	-	-	-
1/14/2016	-	890	-	-	-	-	-	-	-	-
4/20/2016	-	720	-	-	-	-	-	-	-	0.64
7/19/2016	-	680	-	-	-	-	-	-	-	-
10/26/2016	-	620	-	-	-	-	-	-	-	-
4/11/2017	960	600	63.0	23.0	100.0	4.5	93.0	200.0	140.0	0.29
7/6/2017	-	410	-	-	-	-	-	-	-	-
10/12/2017	-	310	-	-	-	-	-	-	-	-
1/17/2018	-	320	-	-	-	-	-	-	-	-
4/12/2018	-	350	-	-	-	-	-	-	-	0.26
7/12/2018	-	570	-	-	-	-	-	-	-	-
10/4/2018	-	480	-	-	-	-	-	-	-	-
1/10/2019	-	510	-	-	-	-	-	-	-	-
4/5/2019	-	520	-	-	-	-	-	-	-	ND
6/3/2019	-	410	-	-	-	-	-	-	-	-
7/11/2019	-	380	-	-	-	-	-	-	-	-
10/15/2019	-	360	-	-	-	-	-	-	-	-
1/2/2020	-	340	-	-	-	-	-	-	-	-
7/22/2020	660	390	50.0	17.0	61.0	3.8	80.0	120.0	120.0	0.34

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Water Quality Data

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
7/29/2020	650	410	51.0	17.0	64.0	4.0	81.0	120.0	120.0	0.36
10/13/2020	-	480	-	-	-	-	-	-	-	-
1/6/2021	-	530	-	-	-	-	-	-	-	-
4/7/2021	-	-	-	-	-	-	-	-	-	0.21
1/12/2022	-	560	-	-	-	-	-	-	-	-
4/12/2022	-	-	-	-	-	-	-	-	-	0.25
1/11/2023	-	600	-	-	-	-	-	-	-	-
4/11/2023	1,000	600	81.0	29.0	89.0	4.5	110.0	220.0	170.0	0.43
No. 154										
1/28/1994	930	530	46.0	20.0	106.0	6.0	89.0	130.0	214.0	0.68
11/3/2015	-	760	-	-	-	-	-	-	-	ND
11/4/2015	1,000	600	75.0	26.0	-	5.6	95.0	-	160.0	0.25
2/4/2016	-	850	-	-	-	-	-	-	-	-
5/5/2016	-	670	-	-	-	-	-	-	-	-
8/4/2016	-	620	-	-	-	-	-	-	-	-
11/9/2016	-	600	-	-	-	-	-	-	-	ND
2/2/2017	-	620	-	-	-	-	-	-	-	-
5/4/2017	-	420	-	-	-	-	-	-	-	-
8/10/2017	-	250	-	-	-	-	-	-	-	-
11/9/2017	-	310	-	-	-	-	-	-	-	0.26
2/6/2018	-	310	-	-	-	-	-	-	-	-
5/4/2018	-	400	-	-	-	-	-	-	-	-
8/8/2018	-	500	-	-	-	-	-	-	-	-
11/27/2018	810	480	58.0	20.0	80.0	5.1	88.0	170.0	110.0	0.25
2/20/2019	-	530	-	-	-	-	-	-	-	-
5/8/2019	-	430	-	-	-	-	-	-	-	-
6/3/2019	-	410	-	-	-	-	-	-	-	-
8/26/2019	-	340	-	-	-	-	-	-	-	-
11/14/2019	-	320	-	-	-	-	-	-	-	0.24
2/5/2020	-	350	-	-	-	-	-	-	-	-
5/8/2020	-	360	-	-	-	-	-	-	-	-
8/7/2020	-	440	-	-	-	-	-	-	-	-
11/5/2020	-	520	-	-	-	-	-	-	-	ND
1/20/2021	-	550	-	-	-	-	-	-	-	-
11/5/2021	880	550	66.0	24.0	85.0	5.2	92.0	190.0	130.0	-
11/19/2021	-	-	-	-	-	-	-	-	-	0.21
1/5/2022	-	550	-	-	-	-	-	-	-	-
11/22/2022	-	-	-	-	-	-	-	-	-	ND
1/11/2023	-	610	-	-	-	-	-	-	-	-
No. 155										
9/16/1993	680	355	22.0	2.0	108.0	1.0	90.0	64.0	104.0	ND
2/23/1995	760	445	30.0	3.0	126.0	1.0	120.0	82.0	140.0	0.90
6/6/1995	-	-	-	-	-	-	-	-	-	1.13
8/14/1997	-	-	-	-	-	-	-	-	-	0.90
2/25/1998	880	540	43.0	5.0	130.0	1.0	100.0	100.0	190.0	1.13
7/27/1998	-	-	-	-	-	-	-	-	-	0.68
2/9/2000	-	-	-	-	-	-	-	-	-	0.45
9/13/2000	690	410	23.0	2.0	120.0	ND	100.0	72.0	130.0	0.45
2/14/2001	-	-	-	-	-	-	-	-	-	1.13
2/21/2002	-	-	-	-	-	-	-	-	-	0.45
2/28/2003	-	-	-	-	-	-	-	-	-	ND
1/7/2004	600	360	10.0	ND	120.0	ND	100.0	60.0	100.0	ND
2/23/2004	-	-	-	-	-	-	-	-	-	1.36
2/16/2005	-	-	-	-	-	-	-	-	-	1.13
10/11/2005	-	-	-	-	-	-	-	-	-	0.45
2/7/2006	-	-	-	-	-	-	-	-	-	1.11
2/7/2007	-	-	-	-	-	-	-	-	-	0.57
No. 156										
8/11/2008	670	370	48.0	13.0	78.0	2.2	70.0	62.0	190.0	0.43
5/8/2009	-	400	-	-	-	-	-	-	-	-
8/5/2009	-	410	-	-	-	-	-	-	-	0.34
2/3/2010	-	370	-	-	-	-	-	-	-	-
5/7/2010	-	470	-	-	-	-	-	-	-	-
8/10/2010	-	390	-	-	-	-	-	-	-	ND
11/10/2010	-	410	-	-	-	-	-	-	-	-

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TABLE D-4
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Water Quality Data

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
2/9/2011	-	410	-	-	-	-	-	-	-	-
5/4/2011	-	400	-	-	-	-	-	-	-	-
8/4/2011	660	380	44.0	11.0	72.0	1.8	75.0	53.0	180.0	0.45
11/10/2011	-	390	-	-	-	-	-	-	-	-
2/8/2012	-	340	-	-	-	-	-	-	-	-
5/3/2012	-	360	-	-	-	-	-	-	-	-
8/9/2012	-	360	-	-	-	-	-	-	-	0.29
11/2/2012	-	420	-	-	-	-	-	-	-	-
2/6/2013	-	390	-	-	-	-	-	-	-	-
5/2/2013	-	370	-	-	-	-	-	-	-	-
8/14/2013	-	370	-	-	-	-	-	-	-	0.27
11/7/2013	-	390	-	-	-	-	-	-	-	-
2/5/2014	-	390	-	-	-	-	-	-	-	-
5/23/2014	-	400	-	-	-	-	-	-	-	-
8/7/2014	650	380	42.0	11.0	78.0	1.8	86.0	62.0	170.0	0.34
11/5/2014	-	400	-	-	-	-	-	-	-	-
2/10/2015	-	510	-	-	-	-	-	-	-	-
5/14/2015	-	380	-	-	-	-	-	-	-	-
8/6/2015	-	400	-	-	-	-	-	-	-	0.29
3/3/2016	-	380	-	-	-	-	-	-	-	-
5/5/2016	-	400	-	-	-	-	-	-	-	-
8/2/2016	-	400	-	-	-	-	-	-	-	0.21
11/8/2016	-	390	-	-	-	-	-	-	-	-
2/3/2017	-	420	-	-	-	-	-	-	-	-
5/4/2017	-	400	-	-	-	-	-	-	-	-
8/9/2017	680	400	41.0	10.0	75.0	1.7	84.0	61.0	140.0	0.24
11/2/2017	-	400	-	-	-	-	-	-	-	-
5/22/2018	-	400	-	-	-	-	-	-	-	-
8/14/2018	-	410	-	-	-	-	-	-	-	ND
11/6/2018	-	350	-	-	-	-	-	-	-	-
2/22/2019	-	300	-	-	-	-	-	-	-	-
5/2/2019	-	390	-	-	-	-	-	-	-	-
8/21/2019	-	380	-	-	-	-	-	-	-	ND
11/8/2019	-	390	-	-	-	-	-	-	-	-
2/11/2020	-	300	-	-	-	-	-	-	-	-
5/5/2020	-	380	-	-	-	-	-	-	-	-
8/11/2020	620	370	39.0	9.0	80.0	1.5	90.0	64.0	150.0	ND
11/19/2020	-	280	-	-	-	-	-	-	-	-
2/9/2021	-	390	-	-	-	-	-	-	-	-
8/6/2021	-	-	-	-	-	-	-	-	-	0.21
2/2/2022	-	360	-	-	-	-	-	-	-	-
8/9/2022	-	-	-	-	-	-	-	-	-	ND
2/23/2023	-	370	-	-	-	-	-	-	-	-
8/2/2023	670	390	39.0	9.5	89.0	1.5	88.0	61.0	150.0	ND
No. 157										
4/13/1999	930	600	59.0	21.0	110.0	7.0	95.0	150.0	240.0	ND
4/11/2000	-	-	-	-	-	-	-	-	-	0.45
6/14/2001	-	-	-	-	-	-	-	-	-	ND
4/2/2002	830	520	60.0	22.0	78.0	4.1	78.0	190.0	150.0	ND
4/14/2005	720	420	47.0	18.0	69.0	3.2	74.0	120.0	150.0	0.45
4/4/2007	-	-	-	-	-	-	-	-	-	ND
4/8/2008	1,100	640	68.0	24.0	110.0	4.3	130.0	170.0	230.0	0.59
7/8/2008	-	580	-	-	-	-	-	-	-	-
1/2/2009	-	560	-	-	-	-	-	-	-	-
4/6/2009	-	640	-	-	-	-	-	-	-	ND
7/13/2009	-	590	-	-	-	-	-	-	-	-
1/7/2010	-	660	-	-	-	-	-	-	-	-
4/8/2010	-	620	-	-	-	-	-	-	-	ND
7/8/2010	-	610	-	-	-	-	-	-	-	-
10/7/2010	-	540	-	-	-	-	-	-	-	-
1/11/2011	-	590	-	-	-	-	-	-	-	-
4/13/2011	830	520	49.0	17.0	84.0	3.4	89.0	120.0	180.0	ND
7/12/2011	-	460	-	-	-	-	-	-	-	-
10/6/2011	-	370	-	-	-	-	-	-	-	-
1/11/2012	-	260	-	-	-	-	-	-	-	-
4/12/2012	-	330	-	-	-	-	-	-	-	ND
10/10/2012	-	360	-	-	-	-	-	-	-	-

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
11/28/2012	930	530	68.0	25.0	82.0	5.1	110.0	110.0	230.0	0.25
1/9/2013	-	470	-	-	-	-	-	-	-	-
4/11/2013	-	370	-	-	-	-	-	-	-	0.25
7/10/2013	-	480	-	-	-	-	-	-	-	-
10/16/2013	-	510	-	-	-	-	-	-	-	-
1/16/2014	-	510	-	-	-	-	-	-	-	-
4/2/2014	960	560	66.0	24.0	79.0	4.1	81.0	190.0	160.0	0.27
7/3/2014	-	560	-	-	-	-	-	-	-	-
10/9/2014	-	520	-	-	-	-	-	-	-	-
1/13/2015	-	630	-	-	-	-	-	-	-	-
4/21/2015	-	590	-	-	-	-	-	-	-	0.23
7/15/2015	-	630	-	-	-	-	-	-	-	-
10/21/2015	-	670	-	-	-	-	-	-	-	-
1/14/2016	-	960	-	-	-	-	-	-	-	-
6/30/2016	-	650	-	-	-	-	-	-	-	0.57
7/19/2016	-	660	-	-	-	-	-	-	-	-
10/26/2016	-	590	-	-	-	-	-	-	-	-
4/11/2017	810	490	52.0	22.0	80.0	4.8	83.0	150.0	120.0	0.28
7/6/2017	-	260	-	-	-	-	-	-	-	-
10/12/2017	-	400	-	-	-	-	-	-	-	-
1/17/2018	-	320	-	-	-	-	-	-	-	-
8/8/2018	-	480	-	-	-	-	-	-	-	0.29
10/4/2018	-	490	-	-	-	-	-	-	-	-
1/10/2019	-	530	-	-	-	-	-	-	-	-
4/5/2019	-	500	-	-	-	-	-	-	-	0.21
6/3/2019	-	370	-	-	-	-	-	-	-	-
7/11/2019	-	340	-	-	-	-	-	-	-	-
10/15/2019	-	330	-	-	-	-	-	-	-	-
1/2/2020	-	320	-	-	-	-	-	-	-	-
4/14/2020	620	340	44.0	15.0	56.0	3.3	72.0	92.0	110.0	0.58
7/15/2020	-	400	-	-	-	-	-	-	-	-
10/13/2020	-	520	-	-	-	-	-	-	-	-
1/6/2021	-	540	-	-	-	-	-	-	-	-
4/20/2021	-	-	-	-	-	-	-	-	-	0.23
1/5/2022	-	560	-	-	-	-	-	-	-	-
4/12/2022	-	-	-	-	-	-	-	-	-	0.20
1/11/2023	-	620	-	-	-	-	-	-	-	-
4/12/2023	1,000	620	76.0	28.0	84.0	4.0	110.0	230.0	150.0	0.33
No. 158										
6/21/1994	1,090	620	67.0	23.0	124.0	7.0	120.0	170.0	259.0	-
4/14/1999	1,050	660	63.0	24.0	120.0	7.0	110.0	160.0	270.0	ND
4/11/2000	-	-	-	-	-	-	-	-	-	0.45
6/14/2001	-	-	-	-	-	-	-	-	-	0.45
4/2/2002	900	550	61.0	22.0	92.0	5.7	93.0	190.0	180.0	ND
4/14/2005	800	450	51.0	19.0	79.0	4.6	83.0	150.0	160.0	0.45
4/4/2006	-	-	-	-	-	-	-	-	-	0.88
4/4/2007	-	-	-	-	-	-	-	-	-	1.04
4/8/2008	1,300	760	77.0	25.0	140.0	6.4	150.0	180.0	280.0	0.79
7/8/2008	-	750	-	-	-	-	-	-	-	-
1/2/2009	-	640	-	-	-	-	-	-	-	-
4/6/2009	-	650	-	-	-	-	-	-	-	ND
7/13/2009	-	670	-	-	-	-	-	-	-	-
1/6/2010	-	810	-	-	-	-	-	-	-	-
4/8/2010	-	800	-	-	-	-	-	-	-	0.34
7/8/2010	-	680	-	-	-	-	-	-	-	-
10/7/2010	-	750	-	-	-	-	-	-	-	-
1/11/2011	-	710	-	-	-	-	-	-	-	-
4/13/2011	870	530	43.0	16.0	100.0	4.8	97.0	130.0	180.0	0.45
7/12/2011	-	610	-	-	-	-	-	-	-	-
10/6/2011	-	570	-	-	-	-	-	-	-	-
2/9/2012	-	520	-	-	-	-	-	-	-	-
4/12/2012	-	-	-	-	-	-	-	-	-	ND
5/2/2012	-	460	-	-	-	-	-	-	-	-
8/8/2012	-	550	-	-	-	-	-	-	-	-
11/1/2012	-	740	-	-	-	-	-	-	-	-
2/12/2013	-	470	-	-	-	-	-	-	-	-
4/11/2013	-	-	-	-	-	-	-	-	-	0.29

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5/14/2013	-	620	-	-	-	-	-	-	-	-
8/14/2013	-	710	-	-	-	-	-	-	-	-
11/6/2013	-	720	-	-	-	-	-	-	-	-
2/6/2014	-	710	-	-	-	-	-	-	-	-
4/2/2014	1,200	700	70.0	25.0	120.0	6.2	120.0	170.0	250.0	0.38
5/8/2014	-	660	-	-	-	-	-	-	-	-
8/6/2014	-	480	-	-	-	-	-	-	-	-
11/13/2014	-	700	-	-	-	-	-	-	-	-
2/5/2015	-	670	-	-	-	-	-	-	-	-
4/21/2015	-	-	-	-	-	-	-	-	-	0.27
5/6/2015	-	680	-	-	-	-	-	-	-	-
8/5/2015	-	660	-	-	-	-	-	-	-	-
11/3/2015	-	850	-	-	-	-	-	-	-	-
2/4/2016	-	840	-	-	-	-	-	-	-	-
4/20/2016	-	-	-	-	-	-	-	-	-	0.26
5/5/2016	-	820	-	-	-	-	-	-	-	-
8/4/2016	-	790	-	-	-	-	-	-	-	-
11/9/2016	-	830	-	-	-	-	-	-	-	-
2/2/2017	-	890	-	-	-	-	-	-	-	-
4/27/2017	770	460	44.0	15.0	95.0	4.3	90.0	100.0	140.0	0.27
5/14/2017	-	330	-	-	-	-	-	-	-	-
9/12/2017	-	670	-	-	-	-	-	-	-	-
11/9/2017	-	580	-	-	-	-	-	-	-	-
2/6/2018	-	410	-	-	-	-	-	-	-	-
4/12/2018	-	-	-	-	-	-	-	-	-	0.23
5/4/2018	-	720	-	-	-	-	-	-	-	-
8/8/2018	-	620	-	-	-	-	-	-	-	-
11/7/2018	-	740	-	-	-	-	-	-	-	-
2/20/2019	-	640	-	-	-	-	-	-	-	-
3/26/2019	-	720	-	-	-	-	-	-	-	-
4/1/2019	-	600	-	-	-	-	-	-	-	-
4/5/2019	-	-	-	-	-	-	-	-	-	ND
4/23/2019	-	710	-	-	-	-	-	-	-	-
5/7/2019	-	670	-	-	-	-	-	-	-	-
5/8/2019	-	660	-	-	-	-	-	-	-	-
6/3/2019	-	680	-	-	-	-	-	-	-	-
6/10/2019	-	630	-	-	-	-	-	-	-	-
6/19/2019	-	580	-	-	-	-	-	-	-	-
6/25/2019	-	550	-	-	-	-	-	-	-	-
7/1/2019	-	550	-	-	-	-	-	-	-	-
7/10/2019	-	540	-	-	-	-	-	-	-	-
7/16/2019	-	540	-	-	-	-	-	-	-	-
7/24/2019	-	560	-	-	-	-	-	-	-	-
7/29/2019	-	530	-	-	-	-	-	-	-	-
8/14/2019	-	520	-	-	-	-	-	-	-	-
11/14/2019	-	560	-	-	-	-	-	-	-	-
2/5/2020	-	760	-	-	-	-	-	-	-	-
4/14/2020	940	550	56.0	20.0	110.0	4.8	110.0	140.0	170.0	0.24
5/8/2020	-	620	-	-	-	-	-	-	-	-
5/15/2020	-	590	-	-	-	-	-	-	-	-
5/29/2020	-	640	-	-	-	-	-	-	-	-
6/12/2020	-	570	-	-	-	-	-	-	-	-
6/26/2020	-	600	-	-	-	-	-	-	-	-
7/10/2020	-	610	-	-	-	-	-	-	-	-
7/24/2020	-	680	-	-	-	-	-	-	-	-
8/7/2020	-	740	-	-	-	-	-	-	-	-
8/21/2020	-	700	-	-	-	-	-	-	-	-
9/4/2020	-	660	-	-	-	-	-	-	-	-
11/5/2020	-	710	-	-	-	-	-	-	-	-
1/19/2021	-	720	-	-	-	-	-	-	-	-
4/20/2021	-	-	-	-	-	-	-	-	-	ND
1/5/2022	-	720	-	-	-	-	-	-	-	-
4/12/2022	-	-	-	-	-	-	-	-	-	ND
1/11/2023	-	660	-	-	-	-	-	-	-	-
6/26/2023	1,100	630	61.0	23.0	120.0	5.7	130.0	170.0	210.0	0.32
No. 161										
2/25/2016	1,100	690	70.0	27.0	120.0	4.8	100.0	220.0	170.0	ND

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
5/4/2016	1,200	710	77.0	32.0	100.0	5.8	120.0	200.0	210.0	0.56
8/4/2016	930	580	59.0	26.0	91.0	6.2	96.0	200.0	150.0	0.28
11/9/2016	990	670	67.0	24.0	97.0	5.1	95.0	210.0	160.0	0.28
2/2/2017	-	610	-	-	-	-	-	-	-	0.23
2/3/2017	990	590	73.0	27.0	99.0	4.0	94.0	230.0	150.0	ND
5/4/2017	550	310	32.0	12.0	58.0	2.8	49.0	76.0	94.0	0.28
8/10/2017	640	370	41.0	14.0	62.0	3.7	53.0	81.0	140.0	0.39
11/9/2017	-	310	-	-	-	-	-	-	-	-
2/6/2018	-	320	-	-	-	-	-	-	-	0.42
5/4/2018	-	550	-	-	-	-	-	-	-	-
8/8/2018	-	470	-	-	-	-	-	-	-	-
11/7/2018	-	470	-	-	-	-	-	-	-	-
2/12/2019	890	530	64.0	23.0	83.0	4.0	89.0	200.0	130.0	0.22
5/8/2019	-	350	-	-	-	-	-	-	-	-
6/3/2019	-	320	-	-	-	-	-	-	-	-
8/26/2019	-	370	-	-	-	-	-	-	-	-
11/14/2019	-	340	-	-	-	-	-	-	-	-
2/5/2020	-	350	-	-	-	-	-	-	-	0.32
5/8/2020	-	390	-	-	-	-	-	-	-	-
8/7/2020	-	470	-	-	-	-	-	-	-	-
11/5/2020	-	540	-	-	-	-	-	-	-	-
1/19/2021	-	570	-	-	-	-	-	-	-	-
2/2/2021	-	-	-	-	-	-	-	-	-	ND
1/5/2022	-	520	-	-	-	-	-	-	-	-
2/3/2022	880	540	68.0	25.0	87.0	4.0	96.0	200.0	130.0	0.23
1/11/2023	-	620	-	-	-	-	-	-	-	-
2/9/2023	-	-	-	-	-	-	-	-	-	0.28
No. 164										
10/12/2017	-	370	-	-	-	-	-	-	-	-
1/4/2018	610	360	40.0	15.0	60.0	4.0	61.0	84.0	120.0	0.26
4/11/2018	-	340	-	-	-	-	-	-	-	-
7/12/2018	-	430	-	-	-	-	-	-	-	-
10/11/2018	-	490	-	-	-	-	-	-	-	-
1/3/2019	-	490	-	-	-	-	-	-	-	ND
4/4/2019	-	510	-	-	-	-	-	-	-	-
7/3/2019	-	410	-	-	-	-	-	-	-	-
8/14/2019	-	390	-	-	-	-	-	-	-	-
10/2/2019	-	310	-	-	-	-	-	-	-	-
1/19/2020	-	370	-	-	-	-	-	-	-	0.50
4/2/2020	-	340	-	-	-	-	-	-	-	-
7/2/2020	-	350	-	-	-	-	-	-	-	-
10/13/2020	-	460	-	-	-	-	-	-	-	-
4/19/2021	890	550	67.0	23.0	81.0	5.1	90.0	190.0	130.0	0.26
1/18/2022	-	540	-	-	-	-	-	-	-	0.26
1/12/2023	-	580	-	-	-	-	-	-	-	0.48
No. 176										
1/12/2021	830	520	66.0	8.9	94.0	3.5	93.0	110.0	170.0	5.20
4/7/2021	820	500	61.0	8.4	94.0	3.4	92.0	100.0	170.0	5.10
7/1/2021	790	510	62.0	8.1	94.0	3.5	91.0	98.0	170.0	6.10
10/13/2021	810	480	59.0	8.0	97.0	3.4	95.0	100.0	160.0	6.00
1/12/2022	-	-	-	-	-	-	-	-	-	5.90
3/9/2022	-	490	-	-	-	-	-	-	-	-
4/7/2022	-	-	-	-	-	-	-	-	-	6.00
7/13/2022	-	-	-	-	-	-	-	-	-	5.90
10/6/2022	-	-	-	-	-	-	-	-	-	5.40
1/13/2023	-	-	-	-	-	-	-	-	-	5.60
3/7/2023	-	490	-	-	-	-	-	-	-	-
4/11/2023	-	-	-	-	-	-	-	-	-	5.80
7/14/2023	-	-	-	-	-	-	-	-	-	5.80
No. 177										
6/12/2020	-	-	-	-	-	-	-	-	-	2.50
7/14/2020	840	510	53.0	6.8	120.0	2.3	93.0	140.0	160.0	1.60
10/7/2020	860	530	60.0	7.7	110.0	2.5	91.0	140.0	160.0	2.20
1/7/2021	830	510	60.0	7.4	100.0	2.8	87.0	130.0	160.0	2.10
4/6/2021	830	500	44.0	5.4	120.0	2.2	89.0	140.0	160.0	1.50

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Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
3/21/2022	-	400	-	-	-	-	-	-	-	-
4/7/2022	-	-	-	-	-	-	-	-	-	2.30
3/7/2023	-	500	-	-	-	-	-	-	-	-
4/11/2023	-	-	-	-	-	-	-	-	-	2.10
No. 201										
3/28/1991	530	315	19.0	6.0	83.0	2.0	83.0	16.0	110.0	0.45
3/11/1993	460	300	8.0	2.0	87.0	1.0	51.0	20.0	146.0	ND
No. 202										
12/11/1988	740	440	47.0	18.0	84.0	3.0	97.0	48.0	223.0	3.85
No. 203										
5/18/1988	960	580	50.0	39.0	110.0	4.0	96.0	115.0	275.0	-
6/29/1988	970	530	44.0	36.0	112.0	4.0	120.0	123.0	250.0	1.13
6/12/1991	800	415	21.0	17.0	108.0	3.0	91.0	90.0	174.0	0.45
6/22/1994	980	645	59.0	38.0	99.0	4.0	130.0	130.0	256.0	0.90
6/7/1995	-	-	-	-	-	-	-	-	-	1.13
6/23/1997	880	530	31.0	26.0	120.0	3.0	100.0	110.0	230.0	0.90
8/14/1997	-	-	-	-	-	-	-	-	-	0.68
11/2/1999	-	-	-	-	-	-	-	-	-	1.13
6/22/2000	820	580	94.0	18.0	58.0	ND	63.0	110.0	250.0	4.98
7/12/2000	880	570	43.0	33.0	120.0	3.0	100.0	130.0	240.0	1.58
8/8/2000	-	-	-	-	-	-	-	-	-	1.36
11/22/2000	-	-	-	-	-	-	-	-	-	1.13
11/20/2001	-	-	-	-	-	-	-	-	-	1.13
11/8/2002	-	-	-	-	-	-	-	-	-	0.90
1/8/2003	-	-	-	-	-	-	-	-	-	0.90
6/10/2003	850	460	31.0	23.0	100.0	2.2	92.0	100.0	220.0	1.13
11/4/2003	-	-	-	-	-	-	-	-	-	1.13
11/18/2004	-	-	-	-	-	-	-	-	-	1.58
6/8/2006	940	540	39.0	32.0	110.0	3.0	100.0	130.0	220.0	1.24
6/1/2007	-	-	-	-	-	-	-	-	-	1.15
6/4/2008	-	520	-	-	-	-	-	-	-	0.97
9/16/2008	-	450	-	-	-	-	-	-	-	-
12/2/2008	-	500	-	-	-	-	-	-	-	-
3/4/2009	-	470	-	-	-	-	-	-	-	-
6/1/2009	-	440	-	-	-	-	-	-	-	0.61
3/3/2010	-	460	-	-	-	-	-	-	-	-
6/2/2010	-	490	-	-	-	-	-	-	-	0.75
9/1/2010	-	440	-	-	-	-	-	-	-	-
12/8/2010	-	450	-	-	-	-	-	-	-	-
3/31/2011	-	490	-	-	-	-	-	-	-	-
6/2/2011	-	430	-	-	-	-	-	-	-	0.72
9/2/2011	-	420	-	-	-	-	-	-	-	-
12/7/2011	-	450	-	-	-	-	-	-	-	-
6/5/2012	740	430	19.0	15.0	110.0	2.3	72.0	94.0	180.0	0.72
9/5/2012	-	440	-	-	-	-	-	-	-	-
12/5/2012	-	410	-	-	-	-	-	-	-	-
3/6/2013	-	420	-	-	-	-	-	-	-	-
6/5/2013	-	400	-	-	-	-	-	-	-	0.61
9/5/2013	-	430	-	-	-	-	-	-	-	-
12/5/2013	-	440	-	-	-	-	-	-	-	-
3/11/2014	-	430	-	-	-	-	-	-	-	-
6/3/2014	-	480	-	-	-	-	-	-	-	1.00
9/4/2014	-	440	-	-	-	-	-	-	-	-
3/11/2015	-	410	-	-	-	-	-	-	-	-
6/2/2015	780	420	17.0	13.0	110.0	1.8	76.0	93.0	170.0	0.63
9/24/2015	-	480	-	-	-	-	-	-	-	-
12/2/2015	-	420	-	-	-	-	-	-	-	-
3/15/2016	-	530	-	-	-	-	-	-	-	-
6/7/2016	-	420	-	-	-	-	-	-	-	0.63
9/8/2016	-	420	-	-	-	-	-	-	-	-
12/6/2016	-	430	-	-	-	-	-	-	-	-
3/9/2017	-	430	-	-	-	-	-	-	-	-
6/14/2017	-	430	-	-	-	-	-	-	-	0.60
9/14/2017	-	420	-	-	-	-	-	-	-	-
12/14/2017	-	440	-	-	-	-	-	-	-	-

NOTES:
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(2) "ND" indicates not detected above minimum testing threshold

TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
3/15/2018	-	460	-	-	-	-	-	-	-	-
5/3/2018	710	440	19.0	14.0	110.0	1.9	79.0	94.0	160.0	0.65
9/13/2018	740	440	28.0	23.0	94.0	2.1	79.0	110.0	160.0	0.78
12/11/2018	-	530	-	-	-	-	-	-	-	-
3/15/2019	-	450	-	-	-	-	-	-	-	-
6/5/2019	-	410	-	-	-	-	-	-	-	0.32
9/5/2019	-	400	-	-	-	-	-	-	-	-
12/13/2019	-	510	-	-	-	-	-	-	-	-
3/3/2020	-	510	-	-	-	-	-	-	-	-
6/3/2020	-	410	-	-	-	-	-	-	-	0.53
9/10/2020	-	470	-	-	-	-	-	-	-	-
12/10/2020	-	500	-	-	-	-	-	-	-	-
3/4/2021	-	420	-	-	-	-	-	-	-	-
5/12/2021	-	-	-	-	-	-	-	-	-	0.54
6/29/2021	850	520	34.0	28.0	110.0	2.8	110.0	130.0	160.0	1.00
3/21/2022	-	400	-	-	-	-	-	-	-	-
6/2/2022	-	-	-	-	-	-	-	-	-	0.54
3/23/2023	-	440	-	-	-	-	-	-	-	-
6/6/2023	-	-	-	-	-	-	-	-	-	0.48
No. 204										
5/22/1991	740	425	50.0	12.0	85.0	3.0	120.0	18.0	198.0	4.30
5/13/1994	690	375	37.0	7.0	85.0	3.0	130.0	19.0	125.0	4.30
No. 205										
3/28/1988	500	290	23.0	3.0	81.0	2.0	83.0	27.0	107.0	4.75
3/13/1991	490	275	22.0	3.0	75.0	2.0	62.0	23.0	113.0	4.75
3/3/1994	510	275	20.0	2.0	72.0	2.0	72.0	24.0	104.0	4.52
4/26/1995	-	-	-	-	-	-	-	-	-	4.98
3/25/1997	480	270	20.0	2.0	75.0	2.0	66.0	18.0	110.0	4.75
5/9/2001	410	270	21.0	3.0	67.0	1.0	60.0	17.0	120.0	5.20
11/13/2001	-	-	-	-	-	-	-	-	-	4.75
2/19/2002	-	-	-	-	-	-	-	-	-	4.52
5/14/2002	-	-	-	-	-	-	-	-	-	4.07
8/27/2002	-	-	-	-	-	-	-	-	-	4.52
11/20/2002	-	-	-	-	-	-	-	-	-	4.07
1/8/2003	-	-	-	-	-	-	-	-	-	4.50
3/31/2003	-	-	-	-	-	-	-	-	-	4.07
6/11/2003	-	-	-	-	-	-	-	-	-	4.07
9/16/2003	-	-	-	-	-	-	-	-	-	4.75
12/4/2003	-	-	-	-	-	-	-	-	-	4.52
3/9/2004	-	-	-	-	-	-	-	-	-	4.07
6/9/2004	-	-	-	-	-	-	-	-	-	4.07
9/1/2004	-	-	-	-	-	-	-	-	-	4.30
12/7/2004	-	-	-	-	-	-	-	-	-	4.52
3/8/2005	-	-	-	-	-	-	-	-	-	4.75
6/7/2005	-	-	-	-	-	-	-	-	-	3.85
9/13/2005	-	-	-	-	-	-	-	-	-	3.62
12/5/2005	-	-	-	-	-	-	-	-	-	3.39
3/9/2006	-	-	-	-	-	-	-	-	-	3.85
6/7/2006	-	-	-	-	-	-	-	-	-	3.85
4/15/2009	500	290	19.0	2.0	71.0	1.4	68.0	18.0	120.0	4.52
7/14/2009	-	270	-	-	-	-	-	-	-	4.52
1/6/2010	-	280	-	-	-	-	-	-	-	3.85
4/8/2010	-	-	-	-	-	-	-	-	-	3.17
4/20/2010	-	290	-	-	-	-	-	-	-	-
7/20/2010	-	260	-	-	-	-	-	-	-	3.62
10/5/2010	-	240	-	-	-	-	-	-	-	3.39
1/4/2011	-	210	-	-	-	-	-	-	-	4.30
4/12/2011	-	280	-	-	-	-	-	-	-	3.39
7/8/2011	-	260	-	-	-	-	-	-	-	3.17
10/4/2011	-	260	-	-	-	-	-	-	-	3.62
1/12/2012	-	250	-	-	-	-	-	-	-	3.62
4/3/2012	-	300	-	-	-	-	-	-	-	4.07
4/24/2012	470	260	16.0	1.4	73.0	1.6	70.0	18.0	98.0	3.62
10/2/2012	-	240	-	-	-	-	-	-	-	3.39
1/3/2013	-	270	-	-	-	-	-	-	-	3.39
4/3/2013	-	250	-	-	-	-	-	-	-	3.17

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
7/2/2013	-	270	-	-	-	-	-	-	-	4.07
10/2/2013	-	280	-	-	-	-	-	-	-	3.62
1/7/2014	-	280	-	-	-	-	-	-	-	3.17
4/15/2014	-	280	-	-	-	-	-	-	-	3.39
7/3/2014	-	280	-	-	-	-	-	-	-	3.17
10/9/2014	-	290	-	-	-	-	-	-	-	3.39
1/7/2015	-	340	-	-	-	-	-	-	-	4.07
4/22/2015	490	310	19.0	1.6	80.0	1.7	76.0	22.0	100.0	3.17
7/16/2015	-	330	-	-	-	-	-	-	-	-
10/22/2015	-	300	-	-	-	-	-	-	-	3.39
1/20/2016	-	220	-	-	-	-	-	-	-	3.20
4/5/2016	-	310	-	-	-	-	-	-	-	3.20
7/12/2016	-	290	-	-	-	-	-	-	-	3.00
10/19/2016	-	280	-	-	-	-	-	-	-	4.70
4/20/2017	-	280	-	-	-	-	-	-	-	3.90
7/13/2017	-	310	-	-	-	-	-	-	-	3.50
10/10/2017	-	250	-	-	-	-	-	-	-	3.60
1/5/2018	-	310	-	-	-	-	-	-	-	3.30
4/13/2018	530	310	25.0	2.2	79.0	1.8	81.0	25.0	95.0	3.70
No. 207										
9/1/1988	510	245	1.0	ND	108.0	ND	54.0	26.0	82.0	ND
9/14/1988	480	305	3.0	ND	106.0	ND	58.0	23.0	24.0	0.23
8/14/1991	480	245	1.0	ND	100.0	ND	52.0	28.0	55.0	ND
8/10/1994	440	285	2.0	ND	91.0	1.0	56.0	29.0	76.0	0.45
8/15/1997	510	280	2.0	ND	97.0	ND	52.0	25.0	98.0	ND
7/27/1998	-	-	-	-	-	-	-	-	-	0.45
12/27/2000	480	280	2.0	ND	100.0	ND	53.0	30.0	120.0	0.45
No. 208										
9/1/1988	680	415	44.0	15.0	77.0	3.0	119.0	14.0	186.0	4.07
9/14/1988	690	440	44.0	14.0	77.0	3.0	129.0	14.0	183.0	3.62
8/14/1991	600	340	23.0	7.0	89.0	2.0	85.0	18.0	162.0	0.90
8/10/1994	560	370	22.0	6.0	89.0	2.0	93.0	20.0	156.0	1.13
6/6/1995	-	-	-	-	-	-	-	-	-	0.90
8/12/1996	-	-	-	-	-	-	-	-	-	0.45
7/27/1999	-	-	-	-	-	-	-	-	-	3.39
8/18/1999	-	-	-	-	-	-	-	-	-	4.52
No. 209										
5/22/1991	790	435	40.0	14.0	105.0	2.0	150.0	35.0	162.0	1.81
5/13/1994	760	525	64.0	22.0	48.0	3.0	150.0	15.0	153.0	5.66
6/20/1995	-	-	-	-	-	-	-	-	-	1.13
5/15/1997	690	390	10.0	3.0	130.0	ND	110.0	56.0	130.0	0.29
No. 210										
4/15/1959	1,366	-	101.0	23.0	150.0	10.0	149.0	200.0	275.0	0.68
1/18/1963	400	926	99.0	30.0	17.5	4.5	145.0	255.0	329.0	0.90
11/30/1967	1,415	890	136.0	5.0	152.0	10.0	146.0	230.0	305.0	0.68
7/26/1968	1,250	825	96.0	22.0	144.0	8.0	130.0	190.0	290.0	1.13
9/6/1968	1,310	840	82.0	26.0	132.0	5.0	142.0	222.0	276.0	2.71
7/19/1973	1,200	579	84.0	21.4	149.0	6.8	121.9	237.0	301.1	4.46
8/8/1975	1,140	695	84.0	14.0	150.0	6.0	101.0	190.0	287.0	3.39
6/22/1976	1,240	675	76.0	26.0	142.0	7.0	101.0	205.0	278.0	8.14
10/13/1976	1,120	640	92.0	22.0	100.0	6.0	110.0	170.0	262.0	1.13
6/16/1977	1,130	610	84.0	18.0	114.0	6.0	110.0	170.0	259.0	2.49
5/20/1980	580	340	30.0	8.0	75.0	4.0	51.0	67.0	152.0	2.04
4/3/1986	800	540	65.0	17.0	86.0	4.5	75.0	112.0	235.0	0.79
7/15/1986	830	560	72.0	19.0	86.0	4.0	87.0	118.0	250.0	0.90
3/28/1988	1,030	575	76.0	22.0	93.0	5.0	99.0	143.0	247.0	0.90
9/25/1991	1,040	600	74.0	20.0	120.0	5.0	120.0	160.0	238.0	1.13
9/19/1994	645	460	52.0	14.0	79.0	4.0	70.0	100.0	198.0	0.45
9/16/1996	-	-	-	-	-	-	-	-	-	0.68
9/16/1998	-	-	-	-	-	-	-	-	-	0.68
12/15/1998	-	-	-	-	-	-	-	-	-	0.45
1/4/1999	-	-	-	-	-	-	-	-	-	0.45
2/3/1999	-	-	-	-	-	-	-	-	-	0.45
4/8/1999	-	-	-	-	-	-	-	-	-	0.68

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Santa Margarita River Watershed
Water Quality Data

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
6/2/1999	-	-	-	-	-	-	-	-	-	0.68
9/7/1999	-	-	-	-	-	-	-	-	-	0.90
10/21/1999	-	-	-	-	-	-	-	-	-	1.13
12/15/1999	-	-	-	-	-	-	-	-	-	1.13
5/3/2000	-	-	-	-	-	-	-	-	-	1.13
9/13/2000	830	560	64.0	17.0	100.0	4.0	74.0	190.0	180.0	0.90
5/8/2001	-	-	-	-	-	-	-	-	-	0.90
5/13/2002	-	-	-	-	-	-	-	-	-	0.68
1/8/2003	-	-	-	-	-	-	-	-	-	0.52
8/20/2003	-	-	-	-	-	-	-	-	-	0.50
9/16/2003	830	560	65.0	18.0	78.0	4.5	76.0	180.0	160.0	0.45
8/10/2004	-	-	-	-	-	-	-	-	-	0.72
8/2/2005	-	-	-	-	-	-	-	-	-	1.22
8/15/2006	-	-	-	-	-	-	-	-	-	1.52
8/14/2007	-	-	-	-	-	-	-	-	-	2.71
8/12/2008	-	590	-	-	-	-	-	-	-	1.72
3/5/2009	-	520	-	-	-	-	-	-	-	-
6/2/2009	-	570	-	-	-	-	-	-	-	-
8/5/2009	-	-	-	-	-	-	-	-	-	1.11
3/3/2010	-	600	-	-	-	-	-	-	-	-
6/2/2010	-	600	-	-	-	-	-	-	-	-
8/11/2010	-	-	-	-	-	-	-	-	-	0.81
9/8/2010	-	600	-	-	-	-	-	-	-	-
12/8/2010	-	590	-	-	-	-	-	-	-	-
3/9/2011	-	620	-	-	-	-	-	-	-	-
6/8/2011	-	600	-	-	-	-	-	-	-	-
11/10/2011	-	600	-	-	-	-	-	-	-	0.86
2/9/2012	-	560	-	-	-	-	-	-	-	-
5/2/2012	-	540	-	-	-	-	-	-	-	-
8/9/2012	-	490	-	-	-	-	-	-	-	-
9/5/2012	840	530	60.0	19.0	84.0	5.6	86.0	150.0	180.0	2.71
11/1/2012	-	500	-	-	-	-	-	-	-	0.63
2/12/2013	-	460	-	-	-	-	-	-	-	-
5/3/2013	-	420	-	-	-	-	-	-	-	-
8/15/2013	-	420	-	-	-	-	-	-	-	-
11/14/2013	-	440	-	-	-	-	-	-	-	0.54
2/5/2014	-	430	-	-	-	-	-	-	-	-
5/15/2014	-	480	-	-	-	-	-	-	-	-
8/6/2014	-	440	-	-	-	-	-	-	-	-
11/6/2014	-	520	-	-	-	-	-	-	-	0.48
2/5/2015	-	520	-	-	-	-	-	-	-	-
5/7/2015	-	530	-	-	-	-	-	-	-	-
8/7/2015	-	510	-	-	-	-	-	-	-	-
9/9/2015	840	510	60.0	19.0	79.0	5.0	81.0	160.0	160.0	0.45
No. 211										
4/8/1997	720	400	67.0	14.0	54.0	1.0	59.0	65.0	220.0	2.94
12/23/1997	-	410	-	-	-	-	-	-	-	3.10
3/25/1998	-	620	-	-	-	-	-	-	-	3.60
6/3/1998	-	-	-	-	-	-	-	-	-	3.40
6/5/1998	-	480	-	-	-	-	-	-	-	-
9/17/1998	-	-	-	-	-	-	-	-	-	3.30
12/17/1998	-	430	-	-	-	-	56.0	66.0	-	3.62
6/3/1999	-	430	-	-	-	-	-	-	-	3.40
12/14/1999	-	310	-	-	-	-	-	-	-	2.26
4/4/2000	700	430	71.0	14.0	52.0	1.0	57.0	66.0	220.0	3.85
6/22/2000	-	400	-	-	-	-	-	-	-	3.39
12/13/2000	-	-	-	-	-	-	-	-	-	4.50
3/27/2001	-	-	-	-	-	-	-	-	-	4.50
6/20/2001	-	-	-	-	-	-	-	-	-	2.70
9/13/2001	-	-	-	-	-	-	-	-	-	4.70
11/13/2001	-	450	-	-	-	-	-	-	-	-
5/14/2002	-	370	-	-	-	-	-	-	-	2.71
7/15/2003	630	370	61.0	11.0	46.0	1.2	46.0	51.0	220.0	2.49
12/9/2008	-	480	-	-	-	-	-	-	-	4.98
3/9/2009	-	560	-	-	-	-	-	-	-	3.85
6/2/2009	-	480	-	-	-	-	-	-	-	3.17
1/12/2010	-	360	-	-	-	-	-	-	-	1.43

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
4/15/2010	-	500	-	-	-	-	-	-	-	3.62
7/21/2010	-	510	-	-	-	-	-	-	-	3.39
10/7/2010	-	540	-	-	-	-	-	-	-	3.17
1/18/2011	-	550	-	-	-	-	-	-	-	3.39
4/6/2011	-	560	-	-	-	-	-	-	-	3.62
7/7/2011	-	520	-	-	-	-	-	-	-	2.94
9/1/2011	840	460	86.0	16.0	56.0	1.2	66.0	100.0	260.0	2.94
10/12/2011	-	420	-	-	-	-	-	-	-	3.17
1/10/2012	-	520	-	-	-	-	-	-	-	3.17
4/18/2012	-	510	-	-	-	-	-	-	-	3.17
10/2/2012	-	520	-	-	-	-	-	-	-	2.94
1/10/2013	-	520	-	-	-	-	-	-	-	2.94
4/17/2013	-	510	-	-	-	-	-	-	-	2.71
7/3/2013	-	540	-	-	-	-	-	-	-	3.17
10/3/2013	-	550	-	-	-	-	-	-	-	3.17
1/28/2014	-	560	-	-	-	-	-	-	-	3.39
4/16/2014	-	430	-	-	-	-	-	-	-	2.49
7/10/2014	-	590	-	-	-	-	-	-	-	3.17
9/4/2014	840	590	92.0	17.0	60.0	1.3	67.0	100.0	260.0	2.94
10/2/2014	-	630	-	-	-	-	-	-	-	2.94
11/13/2014	880	610	93.0	18.0	63.0	1.3	71.0	120.0	260.0	2.94
1/13/2015	-	370	-	-	-	-	-	-	-	2.71
4/14/2015	-	650	-	-	-	-	-	-	-	2.71
7/7/2015	-	550	-	-	-	-	-	-	-	2.71
10/8/2015	-	720	-	-	-	-	-	-	-	2.71
1/12/2016	-	400	-	-	-	-	-	-	-	2.40
4/21/2016	-	550	-	-	-	-	-	-	-	2.80
7/13/2016	-	600	-	-	-	-	-	-	-	2.60
10/5/2016	-	560	-	-	-	-	-	-	-	2.50
1/26/2017	-	460	-	-	-	-	-	-	-	2.40
4/19/2017	-	600	-	-	-	-	-	-	-	2.90
7/11/2017	-	580	-	-	-	-	-	-	-	3.00
9/28/2017	920	580	100.0	19.0	67.0	1.5	81.0	130.0	230.0	2.90
10/10/2017	-	580	-	-	-	-	-	-	-	2.70
1/17/2018	-	460	-	-	-	-	-	-	-	2.40
4/11/2018	-	600	-	-	-	-	-	-	-	3.00
7/11/2018	-	610	-	-	-	-	-	-	-	3.00
10/5/2018	-	600	-	-	-	-	-	-	-	2.80
1/8/2019	-	600	-	-	-	-	-	-	-	2.90
4/2/2019	-	610	-	-	-	-	-	-	-	2.80
7/10/2019	-	600	-	-	-	-	-	-	-	2.50
10/9/2019	-	600	-	-	-	-	-	-	-	2.80
1/23/2020	-	560	-	-	-	-	-	-	-	3.00
4/7/2020	-	530	-	-	-	-	-	-	-	2.70
7/16/2020	-	590	-	-	-	-	-	-	-	3.00
9/2/2020	870	560	100.0	20.0	69.0	1.2	83.0	130.0	240.0	3.10
10/14/2020	-	600	-	-	-	-	-	-	-	2.50
1/14/2021	-	580	-	-	-	-	-	-	-	2.90
4/6/2021	-	-	-	-	-	-	-	-	-	3.00
10/5/2021	-	-	-	-	-	-	-	-	-	3.00
1/13/2022	-	550	-	-	-	-	-	-	-	3.00
4/13/2022	-	-	-	-	-	-	-	-	-	3.30
7/13/2022	-	-	-	-	-	-	-	-	-	2.20
10/13/2022	-	-	-	-	-	-	-	-	-	2.90
1/13/2023	-	410	-	-	-	-	-	-	-	2.10
4/4/2023	-	-	-	-	-	-	-	-	-	3.30
7/20/2023	-	-	-	-	-	-	-	-	-	1.10
No. 212										
3/28/1988	640	330	42.0	2.0	74.0	3.0	81.0	33.0	146.0	3.17
9/25/1991	600	320	41.0	2.0	82.0	4.0	86.0	35.0	146.0	3.17
No. 215										
8/15/1990	650	380	40.0	13.0	71.0	3.0	100.0	14.0	162.0	2.49
9/26/1990	-	-	-	-	-	-	-	-	-	2.94
6/22/1994	630	400	41.0	13.0	67.0	2.0	110.0	16.0	159.0	2.49
6/16/1997	630	370	29.0	9.0	81.0	2.0	110.0	16.0	160.0	1.36
8/15/1997	-	-	-	-	-	-	-	-	-	1.58

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
8/11/2004	630	380	35.0	12.0	76.0	2.6	100.0	14.0	150.0	ND
9/9/2004	-	-	-	-	-	-	-	-	-	2.04
6/26/2006	-	-	-	-	-	-	-	-	-	1.49
6/5/2007	-	-	-	-	-	-	-	-	-	0.54
8/14/2007	590	320	22.0	7.3	85.0	2.2	88.0	16.0	150.0	0.50
12/2/2008	-	370	-	-	-	-	-	-	-	-
3/9/2009	-	380	-	-	-	-	-	-	-	-
6/4/2009	-	300	-	-	-	-	-	-	-	-
3/4/2010	-	340	-	-	-	-	-	-	-	-
6/18/2010	-	340	-	-	-	-	-	-	-	-
8/18/2010	580	330	20.0	6.5	79.0	1.9	82.0	16.0	150.0	0.57
9/3/2010	-	330	-	-	-	-	-	-	-	0.50
12/17/2010	-	350	-	-	-	-	-	-	-	-
3/15/2011	-	250	-	-	-	-	-	-	-	-
6/7/2011	-	320	-	-	-	-	-	-	-	-
12/6/2011	-	320	-	-	-	-	-	-	-	-
No. 216										
6/1/1988	480	280	25.0	4.0	65.0	2.0	71.0	11.0	134.0	-
6/29/1988	480	275	29.0	5.0	59.0	3.0	81.0	7.0	110.0	5.88
6/12/1991	500	285	30.0	5.0	59.0	2.0	76.0	9.0	113.0	5.20
5/27/1992	470	285	33.0	6.0	53.0	2.0	72.0	10.0	119.0	4.52
4/25/2001	490	300	28.0	4.0	55.0	2.0	74.0	13.0	120.0	2.71
9/21/2004	540	320	31.0	5.6	53.0	2.1	74.0	10.0	130.0	3.17
10/26/2004	-	-	-	-	-	-	-	-	-	3.39
11/2/2004	-	-	-	-	-	-	-	-	-	3.39
11/10/2004	-	-	-	-	-	-	-	-	-	3.62
10/18/2005	-	-	-	-	-	-	-	-	-	4.30
10/12/2006	-	-	-	-	-	-	-	-	-	4.30
9/7/2007	510	300	28.0	4.7	57.0	3.5	82.0	12.0	110.0	4.07
10/3/2007	-	-	-	-	-	-	-	-	-	3.85
4/23/2009	-	-	-	-	-	-	-	-	-	3.17
3/18/2010	-	370	-	-	-	-	-	-	-	-
4/8/2010	-	-	-	-	-	-	-	-	-	2.71
6/10/2010	-	380	-	-	-	-	-	-	-	-
9/1/2010	570	340	41.0	6.9	58.0	2.3	86.0	16.0	130.0	3.62
12/8/2010	-	360	-	-	-	-	-	-	-	-
12/14/2010	-	390	-	-	-	-	-	-	-	-
6/8/2011	-	390	-	-	-	-	-	-	-	-
8/10/2011	-	-	-	-	-	-	-	-	-	3.39
12/8/2011	-	400	-	-	-	-	-	-	-	-
6/8/2012	-	420	-	-	-	-	-	-	-	-
No. 217										
3/28/1988	580	285	8.0	1.0	108.0	1.0	81.0	20.0	113.0	3.39
8/10/1988	570	280	8.0	1.0	105.0	1.0	82.0	20.0	55.0	2.94
8/14/1991	570	305	17.0	2.0	99.0	2.0	74.0	28.0	134.0	3.62
8/10/1994	610	365	20.0	3.0	97.0	2.0	82.0	38.0	134.0	3.62
8/15/1997	660	370	20.0	3.0	107.0	1.0	80.0	41.0	130.0	2.94
5/9/2000	-	-	-	-	-	-	-	-	-	3.39
10/12/2000	650	380	19.0	2.0	110.0	1.0	81.0	49.0	150.0	3.62
5/14/2001	-	-	-	-	-	-	-	-	-	3.85
5/14/2002	-	-	-	-	-	-	-	-	-	2.71
10/15/2003	690	400	25.0	3.3	110.0	1.6	84.0	58.0	150.0	3.62
5/6/2004	-	-	-	-	-	-	-	-	-	3.85
5/11/2006	-	-	-	-	-	-	-	-	-	3.39
5/15/2007	-	-	-	-	-	-	-	-	-	3.62
5/6/2008	-	400	-	-	-	-	-	-	-	3.17
8/12/2008	-	430	-	-	-	-	-	-	-	-
5/11/2009	-	400	-	-	-	-	-	-	-	2.94
8/5/2009	-	400	-	-	-	-	-	-	-	-
2/2/2010	-	390	-	-	-	-	-	-	-	-
5/6/2010	-	480	-	-	-	-	-	-	-	3.85
8/9/2010	-	470	-	-	-	-	-	-	-	-
11/16/2010	-	420	-	-	-	-	-	-	-	-
2/2/2011	-	410	-	-	-	-	-	-	-	-
5/4/2011	-	440	-	-	-	-	-	-	-	3.39
8/2/2011	-	440	-	-	-	-	-	-	-	-

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
11/3/2011	-	400	-	-	-	-	-	-	-	-
2/7/2012	-	420	-	-	-	-	-	-	-	-
5/2/2012	-	440	-	-	-	-	-	-	-	3.62
8/7/2012	-	450	-	-	-	-	-	-	-	-
10/2/2012	790	440	31.0	4.0	120.0	1.7	89.0	79.0	170.0	3.62
11/1/2012	-	440	-	-	-	-	-	-	-	-
2/6/2013	-	440	-	-	-	-	-	-	-	-
5/2/2013	-	440	-	-	-	-	-	-	-	3.85
8/19/2013	-	470	-	-	-	-	-	-	-	-
11/5/2013	-	450	-	-	-	-	-	-	-	-
2/5/2014	-	420	-	-	-	-	-	-	-	-
8/8/2014	-	470	-	-	-	-	-	-	-	-
11/5/2014	-	460	-	-	-	-	-	-	-	-
12/18/2014	-	-	-	-	-	-	-	-	-	4.30
2/4/2015	-	380	-	-	-	-	-	-	-	-
5/7/2015	-	450	-	-	-	-	-	-	-	3.39
8/6/2015	-	470	-	-	-	-	-	-	-	-
10/6/2015	820	480	35.0	4.7	120.0	1.7	88.0	82.0	170.0	3.62
11/17/2015	-	470	-	-	-	-	-	-	-	-
2/10/2016	-	490	-	-	-	-	-	-	-	-
5/10/2016	-	460	-	-	-	-	-	-	-	3.90
8/3/2016	-	450	-	-	-	-	-	-	-	-
11/8/2016	-	460	-	-	-	-	-	-	-	-
2/2/2017	-	440	-	-	-	-	-	-	-	-
5/2/2017	-	460	-	-	-	-	-	-	-	4.00
8/4/2017	-	410	-	-	-	-	-	-	-	-
11/8/2017	-	470	-	-	-	-	-	-	-	-
4/11/2018	-	480	-	-	-	-	-	-	-	-
5/9/2018	-	470	-	-	-	-	-	-	-	3.80
8/15/2018	-	470	-	-	-	-	-	-	-	-
10/16/2018	740	430	26.0	3.4	120.0	1.5	90.0	78.0	140.0	3.60
11/8/2018	-	440	-	-	-	-	-	-	-	-
2/22/2019	-	490	-	-	-	-	-	-	-	-
5/7/2019	-	460	-	-	-	-	-	-	-	3.60
8/20/2019	-	470	-	-	-	-	-	-	-	-
11/14/2019	-	460	-	-	-	-	-	-	-	-
2/6/2020	-	490	-	-	-	-	-	-	-	-
5/7/2020	-	470	-	-	-	-	-	-	-	3.60
8/12/2020	-	420	-	-	-	-	-	-	-	-
11/5/2020	-	450	-	-	-	-	-	-	-	-
2/10/2021	-	450	-	-	-	-	-	-	-	-
5/6/2021	-	-	-	-	-	-	-	-	-	3.60
10/13/2021	760	440	32.0	4.2	120.0	2.0	-	91.0	140.0	3.80
2/2/2022	-	420	-	-	-	-	-	-	-	-
5/12/2022	-	-	-	-	-	-	-	-	-	4.10
2/1/2023	-	430	-	-	-	-	-	-	-	-
5/2/2023	-	-	-	-	-	-	-	-	-	3.80
No. 231										
8/15/1990	1,280	805	126.0	18.0	120.0	5.0	100.0	310.0	244.0	2.04
9/26/1990	-	-	-	-	-	-	-	-	-	1.36
3/4/1992	1,700	1,270	180.0	51.0	160.0	6.0	140.0	510.0	332.0	1.13
6/20/1995	1,640	1,300	171.0	44.0	124.0	6.0	75.0	520.0	287.0	1.20
2/27/1998	-	-	-	-	-	-	-	-	-	0.68
5/16/2000	-	-	-	-	-	-	-	-	-	1.13
5/24/2001	1,490	1,080	140.0	35.0	120.0	5.0	120.0	340.0	330.0	0.68
5/13/2002	-	-	-	-	-	-	-	-	-	0.45
7/12/2005	-	-	-	-	-	-	-	-	-	0.50
7/20/2006	-	-	-	-	-	-	-	-	-	0.84
5/2/2007	1,400	830	120.0	27.0	110.0	4.0	130.0	250.0	300.0	0.48
3/7/2008	-	900	-	-	-	-	-	-	-	0.54
No. 232										
8/15/1990	960	590	71.0	19.0	110.0	5.0	98.0	130.0	235.0	6.79
9/26/1990	-	-	-	-	-	-	-	-	-	7.92
9/25/1991	980	565	74.0	19.0	106.0	5.0	98.0	120.0	244.0	8.37
9/19/1994	805	495	54.0	14.0	92.0	4.0	80.0	110.0	207.0	3.39
9/13/1996	-	-	-	-	-	-	-	-	-	4.98

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
11/4/1997	1,000	660	76.0	20.0	110.0	4.0	97.0	130.0	230.0	6.56
7/27/1998	-	-	-	-	-	-	-	-	-	8.60
12/10/1998	-	-	-	-	-	-	-	-	-	4.98
1/6/1999	-	-	-	-	-	-	-	-	-	6.79
1/29/1999	-	-	-	-	-	-	-	-	-	2.26
2/3/1999	-	-	-	-	-	-	-	-	-	5.88
2/24/1999	-	-	-	-	-	-	-	-	-	8.37
4/8/1999	-	-	-	-	-	-	-	-	-	7.47
4/21/1999	-	-	-	-	-	-	-	-	-	7.69
6/23/1999	-	-	-	-	-	-	-	-	-	7.47
7/8/1999	-	-	-	-	-	-	-	-	-	8.14
8/25/1999	-	-	-	-	-	-	-	-	-	7.47
9/21/1999	-	-	-	-	-	-	-	-	-	7.01
10/6/1999	-	-	-	-	-	-	-	-	-	6.79
11/17/1999	-	-	-	-	-	-	-	-	-	7.24
12/14/1999	-	-	-	-	-	-	-	-	-	7.24
1/18/2000	-	-	-	-	-	-	-	-	-	7.01
2/29/2000	-	-	-	-	-	-	-	-	-	2.26
3/21/2000	-	-	-	-	-	-	-	-	-	5.66
4/11/2000	-	-	-	-	-	-	-	-	-	6.56
5/25/2000	-	-	-	-	-	-	-	-	-	5.88
6/21/2000	-	-	-	-	-	-	-	-	-	5.88
7/11/2000	-	-	-	-	-	-	-	-	-	5.66
9/13/2000	920	590	65.0	17.0	105.0	4.0	91.0	150.0	210.0	4.75
10/6/2000	-	-	-	-	-	-	-	-	-	4.07
11/8/2000	-	-	-	-	-	-	-	-	-	3.85
12/13/2000	-	-	-	-	-	-	-	-	-	4.52
1/4/2001	-	-	-	-	-	-	-	-	-	4.30
2/28/2001	-	-	-	-	-	-	-	-	-	2.26
4/10/2001	-	-	-	-	-	-	-	-	-	4.52
10/10/2001	-	-	-	-	-	-	-	-	-	5.88
5/14/2002	-	-	-	-	-	-	-	-	-	4.98
8/6/2002	-	-	-	-	-	-	-	-	-	5.88
1/8/2003	-	-	-	-	-	-	-	-	-	6.00
3/31/2003	-	-	-	-	-	-	-	-	-	2.49
6/10/2003	-	-	-	-	-	-	-	-	-	7.01
7/8/2003	-	-	-	-	-	-	-	-	-	6.79
8/20/2003	-	-	-	-	-	-	-	-	-	6.33
9/16/2003	1,100	680	67.0	18.0	110.0	4.3	100.0	150.0	240.0	7.47
10/14/2003	-	-	-	-	-	-	-	-	-	7.01
1/14/2004	-	-	-	-	-	-	-	-	-	5.20
2/10/2004	-	-	-	-	-	-	-	-	-	4.75
4/14/2004	-	-	-	-	-	-	-	-	-	5.66
5/6/2004	-	-	-	-	-	-	-	-	-	5.88
6/22/2004	-	-	-	-	-	-	-	-	-	5.66
7/14/2004	-	-	-	-	-	-	-	-	-	5.66
8/10/2004	-	-	-	-	-	-	-	-	-	7.01
9/8/2004	-	-	-	-	-	-	-	-	-	5.88
10/26/2004	-	-	-	-	-	-	-	-	-	3.39
11/18/2004	-	-	-	-	-	-	-	-	-	5.88
12/7/2004	-	-	-	-	-	-	-	-	-	3.62
1/10/2005	-	-	-	-	-	-	-	-	-	4.52
2/14/2005	-	-	-	-	-	-	-	-	-	3.17
3/11/2005	-	-	-	-	-	-	-	-	-	2.49
4/13/2005	-	-	-	-	-	-	-	-	-	5.66
6/8/2005	-	-	-	-	-	-	-	-	-	5.43
7/12/2005	-	-	-	-	-	-	-	-	-	4.98
8/2/2005	-	-	-	-	-	-	-	-	-	4.07
9/20/2005	-	-	-	-	-	-	-	-	-	4.30
10/18/2005	-	-	-	-	-	-	-	-	-	4.07
11/8/2005	-	-	-	-	-	-	-	-	-	4.07
12/6/2005	-	-	-	-	-	-	-	-	-	4.30
1/4/2006	-	-	-	-	-	-	-	-	-	3.39
2/14/2006	-	-	-	-	-	-	-	-	-	4.07
3/13/2006	-	-	-	-	-	-	-	-	-	1.88
4/18/2006	-	-	-	-	-	-	-	-	-	2.71
5/12/2006	-	-	-	-	-	-	-	-	-	3.39
6/22/2006	-	-	-	-	-	-	-	-	-	2.49

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
7/19/2006	-	-	-	-	-	-	-	-	-	2.94
8/15/2006	-	-	-	-	-	-	-	-	-	3.17
11/2/2006	-	-	-	-	-	-	-	-	-	3.39
1/10/2007	-	-	-	-	-	-	-	-	-	2.94
2/7/2007	-	-	-	-	-	-	-	-	-	3.39
3/14/2007	-	-	-	-	-	-	-	-	-	3.39
4/17/2007	-	-	-	-	-	-	-	-	-	3.17
5/1/2007	-	-	-	-	-	-	-	-	-	2.94
6/1/2007	-	-	-	-	-	-	-	-	-	2.49
7/5/2007	-	-	-	-	-	-	-	-	-	2.71
8/14/2007	-	-	-	-	-	-	-	-	-	3.17
10/3/2007	-	-	-	-	-	-	-	-	-	2.94
12/5/2007	-	-	-	-	-	-	-	-	-	2.71
1/8/2008	-	-	-	-	-	-	-	-	-	2.49
2/13/2008	-	-	-	-	-	-	-	-	-	1.56
3/4/2008	-	-	-	-	-	-	-	-	-	2.19
3/7/2008	-	610	-	-	-	-	-	-	-	-
4/8/2008	-	-	-	-	-	-	-	-	-	2.94
5/7/2008	-	-	-	-	-	-	-	-	-	2.71
7/10/2008	-	580	-	-	-	-	-	-	-	-
7/28/2008	-	-	-	-	-	-	-	-	-	2.71
8/12/2008	-	-	-	-	-	-	-	-	-	2.94
12/3/2008	-	-	-	-	-	-	-	-	-	3.17
1/13/2009	-	660	-	-	-	-	-	-	-	3.17
2/5/2009	-	-	-	-	-	-	-	-	-	2.94
3/4/2009	-	-	-	-	-	-	-	-	-	2.71
4/2/2009	-	580	-	-	-	-	-	-	-	2.94
5/11/2009	-	-	-	-	-	-	-	-	-	2.49
6/2/2009	-	-	-	-	-	-	-	-	-	2.49
7/13/2009	-	580	-	-	-	-	-	-	-	2.71
8/5/2009	-	-	-	-	-	-	-	-	-	2.71
1/6/2010	-	590	-	-	-	-	-	-	-	2.71
2/3/2010	-	-	-	-	-	-	-	-	-	2.26
3/10/2010	-	-	-	-	-	-	-	-	-	1.92
4/8/2010	-	570	-	-	-	-	-	-	-	2.71
5/7/2010	-	-	-	-	-	-	-	-	-	2.94
6/3/2010	-	-	-	-	-	-	-	-	-	2.94
7/8/2010	-	570	-	-	-	-	-	-	-	2.94
8/10/2010	-	-	-	-	-	-	-	-	-	3.17
9/2/2010	-	-	-	-	-	-	-	-	-	0.81
10/6/2010	-	590	-	-	-	-	-	-	-	3.39
11/16/2010	-	-	-	-	-	-	-	-	-	2.94
12/1/2010	-	-	-	-	-	-	-	-	-	3.17
1/4/2011	-	490	-	-	-	-	-	-	-	1.79
3/9/2011	-	-	-	-	-	-	-	-	-	1.90
4/5/2011	-	560	-	-	-	-	-	-	-	2.94
5/3/2011	-	-	-	-	-	-	-	-	-	2.49
6/8/2011	-	-	-	-	-	-	-	-	-	2.49
7/6/2011	-	590	-	-	-	-	-	-	-	2.26
8/3/2011	-	-	-	-	-	-	-	-	-	2.26
9/2/2011	-	-	-	-	-	-	-	-	-	2.26
10/14/2011	-	610	-	-	-	-	-	-	-	2.49
11/2/2011	-	-	-	-	-	-	-	-	-	2.49
12/7/2011	-	-	-	-	-	-	-	-	-	2.49
1/11/2012	-	590	-	-	-	-	-	-	-	2.24
2/2/2012	-	-	-	-	-	-	-	-	-	2.13
3/7/2012	-	-	-	-	-	-	-	-	-	2.19
4/4/2012	-	580	-	-	-	-	-	-	-	1.90
5/2/2012	-	-	-	-	-	-	-	-	-	2.13
6/5/2012	-	-	-	-	-	-	-	-	-	2.17
8/8/2012	-	-	-	-	-	-	-	-	-	2.26
9/5/2012	950	610	69.0	19.0	100.0	4.5	99.0	200.0	190.0	2.49
10/17/2012	-	620	-	-	-	-	-	-	-	2.26
11/1/2012	-	-	-	-	-	-	-	-	-	2.49
12/4/2012	-	-	-	-	-	-	-	-	-	2.26
1/9/2013	-	610	-	-	-	-	-	-	-	2.24
2/12/2013	-	-	-	-	-	-	-	-	-	2.49
3/12/2013	-	-	-	-	-	-	-	-	-	2.26

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
4/11/2013	-	600	-	-	-	-	-	-	-	2.71
5/2/2013	-	-	-	-	-	-	-	-	-	2.94
6/5/2013	-	-	-	-	-	-	-	-	-	2.49
7/10/2013	-	580	-	-	-	-	-	-	-	2.71
8/14/2013	-	-	-	-	-	-	-	-	-	2.71
9/5/2013	-	-	-	-	-	-	-	-	-	2.94
10/15/2013	-	630	-	-	-	-	-	-	-	3.17
11/6/2013	-	-	-	-	-	-	-	-	-	3.17
12/5/2013	-	-	-	-	-	-	-	-	-	3.17
1/15/2014	-	620	-	-	-	-	-	-	-	3.62
2/5/2014	-	-	-	-	-	-	-	-	-	3.39
3/12/2014	-	-	-	-	-	-	-	-	-	2.49
4/3/2014	-	560	-	-	-	-	-	-	-	2.49
5/27/2014	-	-	-	-	-	-	-	-	-	1.97
6/4/2014	-	-	-	-	-	-	-	-	-	3.17
7/16/2014	-	610	-	-	-	-	-	-	-	3.17
8/6/2014	-	-	-	-	-	-	-	-	-	3.62
9/3/2014	-	-	-	-	-	-	-	-	-	3.62
10/8/2014	-	610	-	-	-	-	-	-	-	3.39
11/6/2014	-	-	-	-	-	-	-	-	-	3.85
12/9/2014	-	-	-	-	-	-	-	-	-	3.39
1/7/2015	-	690	-	-	-	-	-	-	-	2.94
2/5/2015	-	-	-	-	-	-	-	-	-	3.85
3/5/2015	-	-	-	-	-	-	-	-	-	1.99
4/16/2015	-	600	-	-	-	-	-	-	-	3.62
6/4/2015	-	-	-	-	-	-	-	-	-	2.04
7/14/2015	-	580	-	-	-	-	-	-	-	4.07
8/4/2015	-	-	-	-	-	-	-	-	-	4.30
9/10/2015	900	530	64.0	17.0	97.0	3.8	89.0	150.0	200.0	2.49
10/22/2015	-	590	-	-	-	-	-	-	-	4.30
11/10/2015	-	-	-	-	-	-	-	-	-	4.30
12/3/2015	-	-	-	-	-	-	-	-	-	4.30
1/20/2016	-	480	-	-	-	-	-	-	-	3.70
2/3/2016	-	-	-	-	-	-	-	-	-	3.50
3/2/2016	-	-	-	-	-	-	-	-	-	3.80
4/22/2016	-	590	-	-	-	-	-	-	-	4.10
5/4/2016	-	-	-	-	-	-	-	-	-	3.90
6/7/2016	-	-	-	-	-	-	-	-	-	4.20
7/20/2016	-	490	-	-	-	-	-	-	-	3.90
8/4/2016	-	-	-	-	-	-	-	-	-	4.10
9/8/2016	-	-	-	-	-	-	-	-	-	3.80
10/18/2016	-	600	-	-	-	-	-	-	-	3.80
11/2/2016	-	-	-	-	-	-	-	-	-	3.90
12/6/2016	-	-	-	-	-	-	-	-	-	3.80
1/17/2017	-	560	-	-	-	-	-	-	-	3.60
2/2/2017	-	-	-	-	-	-	-	-	-	3.60
3/9/2017	-	-	-	-	-	-	-	-	-	3.40
4/6/2017	-	540	-	-	-	-	-	-	-	3.50
5/3/2017	-	-	-	-	-	-	-	-	-	3.60
6/8/2017	-	-	-	-	-	-	-	-	-	3.40
7/11/2017	-	540	-	-	-	-	-	-	-	3.60
8/4/2017	-	-	-	-	-	-	-	-	-	3.30
9/13/2017	-	-	-	-	-	-	-	-	-	3.30
10/11/2017	-	550	-	-	-	-	-	-	-	2.80
11/8/2017	-	-	-	-	-	-	-	-	-	2.70
12/6/2017	-	-	-	-	-	-	-	-	-	3.20
1/5/2018	-	560	-	-	-	-	-	-	-	2.50
2/15/2018	-	-	-	-	-	-	-	-	-	1.90
3/15/2018	-	-	-	-	-	-	-	-	-	1.50
4/11/2018	-	580	-	-	-	-	-	-	-	2.80
5/4/2018	-	-	-	-	-	-	-	-	-	3.00
6/12/2018	-	-	-	-	-	-	-	-	-	2.80
7/12/2018	-	460	-	-	-	-	-	-	-	3.10
8/15/2018	-	-	-	-	-	-	-	-	-	3.30
9/11/2018	910	570	65.0	17.0	93.0	3.7	100.0	140.0	180.0	3.70
10/11/2018	-	580	-	-	-	-	-	-	-	3.60
11/15/2018	-	-	-	-	-	-	-	-	-	3.90
12/11/2018	-	-	-	-	-	-	-	-	-	3.00

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Water Quality Data

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
1/3/2019	-	570	-	-	-	-	-	-	-	3.50
2/19/2019	-	-	-	-	-	-	-	-	-	2.60
3/12/2019	-	-	-	-	-	-	-	-	-	2.10
4/4/2019	-	600	-	-	-	-	-	-	-	1.80
5/7/2019	-	-	-	-	-	-	-	-	-	3.60
6/18/2019	-	-	-	-	-	-	-	-	-	3.60
7/3/2019	-	560	-	-	-	-	-	-	-	4.10
8/9/2019	-	-	-	-	-	-	-	-	-	4.10
9/5/2019	-	-	-	-	-	-	-	-	-	4.50
10/4/2019	-	580	-	-	-	-	-	-	-	4.30
11/14/2019	-	-	-	-	-	-	-	-	-	4.20
12/10/2019	-	-	-	-	-	-	-	-	-	3.50
1/8/2020	-	630	-	-	-	-	-	-	-	2.90
2/11/2020	-	-	-	-	-	-	-	-	-	2.30
3/4/2020	-	-	-	-	-	-	-	-	-	3.70
4/2/2020	-	600	-	-	-	-	-	-	-	3.60
5/7/2020	-	-	-	-	-	-	-	-	-	3.90
6/9/2020	-	-	-	-	-	-	-	-	-	4.00
7/15/2020	-	580	-	-	-	-	-	-	-	3.90
8/13/2020	-	-	-	-	-	-	-	-	-	4.00
9/22/2020	-	-	-	-	-	-	-	-	-	3.60
10/13/2020	-	610	-	-	-	-	-	-	-	4.30
11/5/2020	-	-	-	-	-	-	-	-	-	3.40
3/18/2021	-	590	-	-	-	-	-	-	-	2.60
4/1/2021	-	-	-	-	-	-	-	-	-	3.30
5/12/2021	-	-	-	-	-	-	-	-	-	3.50
6/3/2021	-	-	-	-	-	-	-	-	-	4.00
7/2/2021	-	-	-	-	-	-	-	-	-	4.10
8/5/2021	-	-	-	-	-	-	-	-	-	4.70
9/1/2021	870	550	69.0	19.0	93.0	4.3	98.0	140.0	160.0	4.50
1/6/2022	-	490	-	-	-	-	-	-	-	-
8/3/2022	-	-	-	-	-	-	-	-	-	5.70
11/2/2022	-	-	-	-	-	-	-	-	-	5.50
1/13/2023	-	530	-	-	-	-	-	-	-	-
2/1/2023	-	-	-	-	-	-	-	-	-	4.00
5/5/2023	-	-	-	-	-	-	-	-	-	5.10
No. 233										
6/15/1988	900	535	71.0	21.0	100.0	5.0	96.0	136.0	247.0	0.90
3/27/1991	1,020	580	66.0	19.0	114.0	5.0	95.0	140.0	247.0	2.71
3/3/1994	740	425	50.0	14.0	75.0	4.0	71.0	100.0	186.0	0.45
4/27/1995	-	-	-	-	-	-	-	-	-	1.36
3/27/1997	880	510	57.0	15.0	100.0	4.0	81.0	120.0	220.0	0.90
1/4/1999	-	-	-	-	-	-	-	-	-	1.13
2/3/1999	-	-	-	-	-	-	-	-	-	0.90
4/8/1999	-	-	-	-	-	-	-	-	-	0.90
6/3/1999	-	-	-	-	-	-	-	-	-	0.90
7/20/1999	-	-	-	-	-	-	-	-	-	1.13
8/11/1999	-	-	-	-	-	-	-	-	-	0.90
9/7/1999	-	-	-	-	-	-	-	-	-	0.90
10/21/1999	-	-	-	-	-	-	-	-	-	1.13
11/3/1999	-	-	-	-	-	-	-	-	-	0.90
4/11/2000	970	570	64.0	18.0	110.0	4.0	85.0	150.0	230.0	0.90
10/6/2000	-	-	-	-	-	-	-	-	-	0.68
10/10/2001	-	-	-	-	-	-	-	-	-	0.90
8/6/2002	-	-	-	-	-	-	-	-	-	0.90
1/13/2003	-	-	-	-	-	-	-	-	-	1.00
7/7/2003	-	-	-	-	-	-	-	-	-	0.61
7/13/2004	-	-	-	-	-	-	-	-	-	0.68
7/12/2005	-	-	-	-	-	-	-	-	-	0.63
4/4/2006	960	600	75.0	20.0	87.0	4.5	93.0	180.0	180.0	1.65
8/4/2006	-	-	-	-	-	-	-	-	-	2.49
8/14/2007	-	-	-	-	-	-	-	-	-	1.83
8/13/2008	-	530	-	-	-	-	-	-	-	1.38
2/5/2009	-	570	-	-	-	-	-	-	-	-
4/2/2009	960	580	70.0	20.0	88.0	4.7	100.0	160.0	200.0	1.54
5/11/2009	-	610	-	-	-	-	-	-	-	-
8/4/2009	-	570	-	-	-	-	-	-	-	1.13

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2/2/2010	-	560	-	-	-	-	-	-	-	-
5/6/2010	-	660	-	-	-	-	-	-	-	-
8/10/2010	-	580	-	-	-	-	-	-	-	1.15
7/2/2011	-	630	-	-	-	-	-	-	-	-
8/3/2011	-	-	-	-	-	-	-	-	-	0.95
10/14/2011	-	620	-	-	-	-	-	-	-	-
1/10/2012	-	580	-	-	-	-	-	-	-	-
4/12/2012	930	570	67.0	20.0	93.0	5.5	91.0	190.0	180.0	1.06
8/8/2012	-	-	-	-	-	-	-	-	-	1.20
10/17/2012	-	540	-	-	-	-	-	-	-	-
1/9/2013	-	520	-	-	-	-	-	-	-	-
4/11/2013	-	500	-	-	-	-	-	-	-	-
7/10/2013	-	440	-	-	-	-	-	-	-	-
8/15/2013	-	-	-	-	-	-	-	-	-	0.93
10/15/2013	-	490	-	-	-	-	-	-	-	-
1/15/2014	-	480	-	-	-	-	-	-	-	-
4/17/2014	-	550	-	-	-	-	-	-	-	-
7/16/2014	-	450	-	-	-	-	-	-	-	-
8/6/2014	-	-	-	-	-	-	-	-	-	0.63
10/8/2014	-	480	-	-	-	-	-	-	-	-
1/14/2015	-	490	-	-	-	-	-	-	-	-
4/16/2015	800	510	57.0	18.0	82.0	5.0	78.0	130.0	160.0	0.54
7/14/2015	-	510	-	-	-	-	-	-	-	-
8/6/2015	-	-	-	-	-	-	-	-	-	0.52
10/22/2015	-	560	-	-	-	-	-	-	-	-
1/4/2016	-	510	-	-	-	-	-	-	-	-
4/5/2016	-	570	-	-	-	-	-	-	-	-
7/20/2016	-	580	-	-	-	-	-	-	-	-
10/18/2016	-	640	-	-	-	-	-	-	-	-
1/17/2017	-	760	-	-	-	-	-	-	-	-
4/6/2017	-	720	-	-	-	-	-	-	-	-
7/11/2017	-	680	-	-	-	-	-	-	-	-
8/10/2017	-	-	-	-	-	-	-	-	-	0.59
10/11/2017	-	670	-	-	-	-	-	-	-	-
1/18/2018	-	680	-	-	-	-	-	-	-	-
2/7/2018	-	440	-	-	-	-	-	-	-	-
4/13/2018	920	600	69.0	22.0	93.0	5.6	92.0	190.0	150.0	0.56
7/12/2018	-	610	-	-	-	-	-	-	-	-
8/15/2018	-	-	-	-	-	-	-	-	-	0.44
10/11/2018	-	580	-	-	-	-	-	-	-	-
1/8/2019	-	520	-	-	-	-	-	-	-	-
4/2/2019	-	450	-	-	-	-	-	-	-	-
7/11/2019	-	480	-	-	-	-	-	-	-	-
8/9/2019	-	-	-	-	-	-	-	-	-	0.57
10/3/2019	-	450	-	-	-	-	-	-	-	-
1/15/2020	-	490	-	-	-	-	-	-	-	-
4/2/2020	-	430	-	-	-	-	-	-	-	-
7/1/2020	-	410	-	-	-	-	-	-	-	-
8/13/2020	-	-	-	-	-	-	-	-	-	0.96
10/13/2020	-	400	-	-	-	-	-	-	-	-
1/6/2021	-	380	-	-	-	-	-	-	-	-
4/8/2021	660	390	42.0	13.0	68.0	4.4	72.0	97.0	130.0	1.60
8/5/2021	-	-	-	-	-	-	-	-	-	1.50
1/12/2022	-	430	-	-	-	-	-	-	-	-
8/10/2022	-	-	-	-	-	-	-	-	-	0.93
1/12/2023	-	530	-	-	-	-	-	-	-	-
8/1/2023	-	-	-	-	-	-	-	-	-	0.94
No. 234										
3/31/1988	840	480	54.0	15.0	100.0	4.0	61.0	109.0	241.0	4.07
3/27/1991	1,020	605	69.0	19.0	114.0	5.0	77.0	138.0	256.0	8.37
6/20/1995	-	-	-	-	-	-	-	-	-	2.49
9/26/1996	-	-	-	-	-	-	-	-	-	2.04
2/4/1997	-	-	-	-	-	-	-	-	-	2.71
4/25/1997	840	500	56.0	15.0	95.0	4.0	77.0	120.0	230.0	1.81
1/19/1999	-	-	-	-	-	-	-	-	-	2.71
2/12/1999	-	-	-	-	-	-	-	-	-	3.62
4/21/1999	-	-	-	-	-	-	-	-	-	3.39

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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
6/3/1999	-	-	-	-	-	-	-	-	-	3.62
7/27/1999	-	-	-	-	-	-	-	-	-	4.07
8/19/1999	-	-	-	-	-	-	-	-	-	3.85
9/21/1999	-	-	-	-	-	-	-	-	-	3.62
10/26/1999	-	-	-	-	-	-	-	-	-	2.94
4/13/2000	900	550	64.0	18.0	10.0	4.0	70.0	150.0	220.0	2.94
7/6/2000	-	-	-	-	-	-	-	-	-	2.71
7/12/2001	-	-	-	-	-	-	-	-	-	1.58
8/2/2001	-	-	-	-	-	-	-	-	-	ND
11/20/2002	-	-	-	-	-	-	-	-	-	0.68
12/11/2002	850	520	62.0	17.0	80.0	3.7	74.0	170.0	170.0	0.90
11/4/2003	-	-	-	-	-	-	-	-	-	2.26
11/5/2004	-	-	-	-	-	-	-	-	-	2.26
11/3/2005	-	-	-	-	-	-	-	-	-	2.71
12/6/2005	890	620	70.0	19.0	89.0	4.1	85.0	180.0	200.0	2.71
11/8/2006	-	-	-	-	-	-	-	-	-	3.17
11/16/2007	-	-	-	-	-	-	-	-	-	3.62
8/12/2008	-	-	-	-	-	-	-	-	-	-
11/6/2008	-	570	-	-	-	-	-	-	-	4.52
12/3/2008	960	660	83.0	21.0	89.0	4.9	87.0	160.0	230.0	4.52
2/5/2009	-	590	-	-	-	-	-	-	-	-
5/7/2009	-	620	-	-	-	-	-	-	-	-
8/4/2009	-	590	-	-	-	-	-	-	-	-
2/3/2010	-	610	-	-	-	-	-	-	-	-
5/6/2010	-	680	-	-	-	-	-	-	-	-
8/10/2010	-	610	-	-	-	-	-	-	-	-
8/11/2010	-	610	-	-	-	-	-	-	-	-
11/1/2010	-	610	-	-	-	-	-	-	-	4.75
2/9/2011	-	620	-	-	-	-	-	-	-	-
5/3/2011	-	620	-	-	-	-	-	-	-	-
8/3/2011	-	570	-	-	-	-	-	-	-	-
11/2/2011	-	560	-	-	-	-	-	-	-	4.52
12/6/2011	990	660	71.0	20.0	99.0	4.2	91.0	160.0	240.0	4.75
5/3/2012	-	620	-	-	-	-	-	-	-	-
8/8/2012	-	620	-	-	-	-	-	-	-	-
11/1/2012	-	620	-	-	-	-	-	-	-	4.98
2/7/2013	-	580	-	-	-	-	-	-	-	-
5/2/2013	-	610	-	-	-	-	-	-	-	-
8/15/2013	-	620	-	-	-	-	-	-	-	-
11/7/2013	-	620	-	-	-	-	-	-	-	4.75
2/5/2014	-	640	-	-	-	-	-	-	-	-
5/15/2014	-	630	-	-	-	-	-	-	-	-
8/13/2014	-	610	-	-	-	-	-	-	-	-
11/6/2014	-	620	-	-	-	-	-	-	-	5.66
11/19/2014	-	-	-	-	-	-	-	-	-	5.20
12/9/2014	780	630	73.0	21.0	110.0	4.5	97.0	160.0	230.0	5.88
2/6/2015	-	670	-	-	-	-	-	-	-	5.66
5/7/2015	-	620	-	-	-	-	-	-	-	5.20
8/6/2015	-	590	-	-	-	-	-	-	-	5.20
11/17/2015	-	620	-	-	-	-	-	-	-	4.98
3/29/2017	-	590	-	-	-	-	-	-	-	6.50
5/3/2017	-	590	-	-	-	-	-	-	-	6.30
8/10/2017	-	590	-	-	-	-	-	-	-	6.50
11/9/2017	-	590	-	-	-	-	-	-	-	6.30
12/13/2017	970	620	70.0	20.0	100.0	4.5	85.0	120.0	210.0	6.60
No. 235										
6/24/1988	460	310	40.0	10.0	41.0	2.0	58.0	10.0	140.0	3.39
6/20/1990	420	230	22.0	4.0	56.0	2.0	50.0	6.0	128.0	4.07
6/10/1993	370	235	15.0	2.0	65.0	2.0	51.0	9.0	113.0	3.85
7/16/1996	410	230	16.0	2.0	60.0	1.0	48.0	8.9	110.0	4.52
6/9/1997	-	-	-	-	-	-	-	-	-	3.85
6/3/1999	390	240	13.0	1.0	63.0	1.0	46.0	6.7	98.0	3.85
11/3/1999	-	-	-	-	-	-	-	-	-	3.62
11/9/2000	-	-	-	-	-	-	-	-	-	3.39
11/20/2001	-	-	-	-	-	-	-	-	-	2.94
6/11/2002	380	210	10.0	ND	62.0	1.2	48.0	7.2	100.0	3.62
11/5/2002	-	-	-	-	-	-	-	-	-	3.85

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
11/18/2003	-	-	-	-	-	-	-	-	-	2.49
6/22/2005	380	230	9.4	ND	68.0	1.1	49.0	7.3	96.0	3.62
11/8/2005	-	-	-	-	-	-	-	-	-	3.85
11/18/2005	-	-	-	-	-	-	-	-	-	4.07
11/14/2006	-	-	-	-	-	-	-	-	-	3.62
6/11/2008	400	210	11.0	1.0	72.0	1.4	48.0	8.4	100.0	3.39
7/7/2008	-	200	-	-	-	-	-	-	-	-
1/13/2009	-	260	-	-	-	-	-	-	-	-
4/7/2009	-	210	-	-	-	-	-	-	-	-
7/13/2009	-	200	-	-	-	-	-	-	-	-
1/6/2010	-	230	-	-	-	-	-	-	-	-
4/8/2010	-	220	-	-	-	-	-	-	-	-
7/14/2010	-	220	-	-	-	-	-	-	-	-
10/5/2010	-	180	-	-	-	-	-	-	-	-
11/16/2010	-	-	-	-	-	-	-	-	-	3.39
1/12/2011	-	170	-	-	-	-	-	-	-	-
8/17/2011	380	230	13.0	1.2	65.0	1.7	48.0	8.4	100.0	3.62
11/2/2011	-	200	-	-	-	-	-	-	-	3.39
2/9/2012	-	200	-	-	-	-	-	-	-	-
5/3/2012	-	220	-	-	-	-	-	-	-	-
8/9/2012	-	200	-	-	-	-	-	-	-	-
11/2/2012	-	220	-	-	-	-	-	-	-	3.17
2/10/2013	-	230	-	-	-	-	-	-	-	-
5/2/2013	-	200	-	-	-	-	-	-	-	-
9/10/2013	-	220	-	-	-	-	-	-	-	-
11/7/2013	-	250	-	-	-	-	-	-	-	3.17
2/5/2014	-	200	-	-	-	-	-	-	-	-
5/20/2014	-	180	-	-	-	-	-	-	-	-
8/7/2014	370	190	9.4	ND	68.0	1.2	51.0	8.9	110.0	3.39
11/5/2014	-	230	-	-	-	-	-	-	-	3.39
2/4/2015	-	110	-	-	-	-	-	-	-	-
5/14/2015	-	230	-	-	-	-	-	-	-	-
8/7/2015	-	190	-	-	-	-	-	-	-	-
11/17/2015	-	240	-	-	-	-	-	-	-	2.94
2/10/2016	-	240	-	-	-	-	-	-	-	-
5/11/2016	-	210	-	-	-	-	-	-	-	-
8/2/2016	-	230	-	-	-	-	-	-	-	-
11/2/2016	-	210	-	-	-	-	-	-	-	3.10
2/3/2017	-	230	-	-	-	-	-	-	-	-
5/2/2017	-	220	-	-	-	-	-	-	-	-
8/4/2017	380	220	10.0	ND	67.0	1.3	48.0	8.6	78.0	3.10
11/8/2017	-	220	-	-	-	-	-	-	-	3.00
5/9/2018	-	220	-	-	-	-	-	-	-	-
8/10/2018	-	230	-	-	-	-	-	-	-	-
11/15/2018	-	220	-	-	-	-	-	-	-	3.60
2/22/2019	-	230	-	-	-	-	-	-	-	-
5/7/2019	-	220	-	-	-	-	-	-	-	-
8/14/2019	-	230	-	-	-	-	-	-	-	-
11/8/2019	-	230	-	-	-	-	-	-	-	3.30
2/5/2020	-	220	-	-	-	-	-	-	-	-
5/14/2020	-	210	-	-	-	-	-	-	-	-
8/13/2020	340	220	12.0	1.0	68.0	1.3	54.0	10.0	85.0	3.30
11/5/2020	-	220	-	-	-	-	-	-	-	2.60
2/3/2021	-	220	-	-	-	-	-	-	-	-
11/3/2021	-	-	-	-	-	-	-	-	-	3.40
2/3/2022	-	200	-	-	-	-	-	-	-	-
2/7/2023	-	230	-	-	-	-	-	-	-	1.90
3/23/2023	-	-	-	-	-	-	-	-	-	1.50
8/2/2023	390	230	12.0	1.1	70.0	1.2	53.0	10.0	85.0	3.30
No. 236										
9/1/2017	1,000	670	74.0	24.0	100.0	6.1	110.0	230.0	160.0	0.44
11/8/2017	1,000	640	69.0	24.0	99.0	6.1	96.0	200.0	150.0	0.41
2/7/2018	870	520	55.0	19.0	99.0	5.0	88.0	170.0	150.0	0.48
5/3/2018	710	440	48.0	16.0	87.0	5.3	69.0	120.0	150.0	0.55
8/14/2018	730	460	47.0	15.0	83.0	4.5	74.0	120.0	160.0	0.42
11/6/2018	730	420	42.0	14.0	80.0	4.6	74.0	110.0	140.0	0.80
2/19/2019	770	450	47.0	16.0	87.0	4.2	76.0	130.0	140.0	0.54

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Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
2/6/2020	-	-	-	-	-	-	-	-	-	0.89
2/2/2021	-	-	-	-	-	-	-	-	-	2.20
3/4/2021	-	410	-	-	-	-	-	-	-	-
2/3/2022	800	500	65.0	21.0	78.0	5.2	87.0	170.0	130.0	0.73
3/17/2022	-	490	-	-	-	-	-	-	-	-
2/23/2023	-	-	-	-	-	-	-	-	-	0.46
3/9/2023	-	550	-	-	-	-	-	-	-	-
No. 237										
11/22/2017	590	350	18.0	5.8	92.0	2.0	82.0	23.0	140.0	ND
2/7/2018	550	310	17.0	5.3	92.0	1.9	81.0	21.0	130.0	0.38
5/3/2018	510	310	15.0	4.7	87.0	1.8	75.0	18.0	140.0	0.24
6/29/2018	-	320	15.0	4.9	-	-	-	-	140.0	-
8/9/2018	520	300	14.0	4.2	89.0	1.6	70.0	19.0	150.0	ND
11/6/2018	520	270	12.0	3.5	89.0	1.5	71.0	18.0	130.0	ND
2/19/2019	540	300	14.0	4.5	95.0	1.9	71.0	19.0	130.0	ND
2/25/2020	-	-	-	-	-	-	-	-	-	ND
2/9/2021	-	-	-	-	-	-	-	-	-	ND
3/11/2021	-	320	-	-	-	-	-	-	-	-
2/3/2022	490	270	11.0	3.2	95.0	1.4	70.0	17.0	120.0	ND
10/24/2022	-	310	-	-	-	-	-	-	-	-
2/8/2023	-	-	-	-	-	-	-	-	-	ND
3/9/2023	-	290	-	-	-	-	-	-	-	-
No. 238										
4/25/2018	470	270	22.0	3.3	66.0	1.9	73.0	14.0	100.0	0.91
6/29/2018	-	330	31.0	5.2	-	-	-	-	120.0	-
7/17/2018	530	310	32.0	4.6	69.0	2.2	87.0	15.0	120.0	2.80
10/3/2018	520	300	28.0	4.5	65.0	2.0	85.0	15.0	100.0	2.70
1/9/2019	510	300	26.0	3.9	70.0	2.0	79.0	14.0	110.0	1.90
1/15/2020	-	-	-	-	-	-	-	-	-	1.80
1/12/2021	-	-	-	-	-	-	-	-	-	1.60
3/4/2021	-	280	-	-	-	-	-	-	-	-
1/5/2022	490	270	24.0	3.7	65.0	2.0	78.0	15.0	100.0	2.00
3/10/2022	-	260	-	-	-	-	-	-	-	-
1/9/2023	-	-	-	-	-	-	-	-	-	1.90
No. 240										
9/25/2018	-	-	-	-	-	-	-	-	-	3.50
10/17/2018	640	350	17.0	1.3	110.0	1.5	110.0	48.0	71.0	3.10
1/9/2019	590	340	13.0	1.1	100.0	1.3	98.0	39.0	79.0	2.80
4/2/2019	520	300	9.7	ND	96.0	1.1	87.0	32.0	78.0	1.90
7/22/2019	490	270	8.6	ND	92.0	1.1	80.0	30.0	78.0	2.50
7/27/2020	-	-	-	-	-	-	-	-	-	3.00
12/16/2020	-	290	-	-	-	-	-	-	-	-
12/17/2020	-	300	-	-	-	-	-	-	-	-
2/11/2021	-	350	-	-	-	-	-	-	-	-
7/14/2021	-	-	-	-	-	-	-	-	-	3.00
2/3/2022	-	300	-	-	-	-	-	-	-	-
7/7/2022	480	280	9.4	ND	95.0	1.1	83.0	29.0	69.0	2.50
2/7/2023	-	270	-	-	-	-	-	-	-	-
7/6/2023	-	-	-	-	-	-	-	-	-	2.70
No. 301										
7/29/1992	500	290	20.0	6.0	80.0	1.0	45.0	56.0	143.0	ND
2/27/1997	580	350	45.0	16.0	48.0	2.0	49.0	54.0	200.0	0.90
8/15/1997	-	-	-	-	-	-	-	-	-	1.36
12/27/2000	570	360	49.0	15.0	53.0	2.0	55.0	57.0	180.0	1.58
2/22/2002	-	-	-	-	-	-	-	-	-	ND
5/14/2002	550	340	-	-	-	-	57.0	50.0	-	0.68
12/11/2002	580	350	-	-	-	-	-	-	-	0.57
No. 302										
3/17/2004	830	510	-	-	-	-	110.0	85.0	-	ND
4/11/1988	690	360	36.0	6.0	100.0	1.0	77.0	65.0	192.0	ND
5/15/1991	760	425	58.0	9.0	87.0	2.0	83.0	72.0	220.0	ND
5/14/1992	-	270	12.0	2.0	90.0	ND	48.0	48.0	-	-
5/5/1994	870	530	69.0	16.0	84.0	2.0	110.0	88.0	238.0	ND

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
5/16/1995	-	-	-	-	-	-	-	-	-	ND
7/16/1996	530	320	-	-	-	-	60.0	54.0	-	0.45
5/13/1997	560	500	73.0	14.0	94.0	2.0	110.0	86.0	240.0	ND
7/27/1999	-	-	-	-	-	-	-	-	-	ND
5/17/2000	520	320	11.0	1.0	99.0	ND	51.0	50.0	130.0	ND
6/13/2000	520	310	-	-	-	-	-	-	-	ND
7/11/2000	-	-	-	-	-	-	-	-	-	ND
12/20/2001	790	500	-	-	-	-	110.0	140.0	-	ND
12/11/2002	870	510	-	-	-	-	-	-	-	ND
6/19/2003	620	370	22.0	3.8	95.0	ND	77.0	63.0	140.0	ND
6/22/2004	-	-	-	-	-	-	-	-	-	ND
9/21/2004	900	550	-	-	-	-	110.0	82.0	-	ND
No. 309										
8/15/1990	690	370	19.0	3.0	119.0	2.0	140.0	25.0	73.0	1.13
4/11/1991	-	-	-	-	-	-	-	-	-	ND
9/25/1991	730	365	19.0	2.0	122.0	2.0	150.0	27.0	82.0	1.13
8/11/1994	730	430	20.0	2.0	120.0	2.0	160.0	30.0	73.0	1.13
2/16/1995	-	-	-	-	-	-	-	-	-	4.07
7/16/1997	-	-	-	-	-	-	-	-	-	1.10
7/23/1997	-	-	-	-	-	-	-	-	-	1.20
8/20/1997	-	-	-	-	-	-	-	-	-	1.10
9/3/1997	-	-	-	-	-	-	-	-	-	1.10
9/18/1997	-	-	-	-	-	-	-	-	-	1.10
10/3/1997	790	520	21.0	2.0	130.0	2.0	170.0	33.0	85.0	1.36
8/6/1998	-	-	-	-	-	-	-	-	-	1.36
9/16/1998	-	460	-	-	-	-	-	-	-	1.40
7/20/1999	-	-	-	-	-	-	-	-	-	1.36
5/10/2000	-	450	20.0	2.0	130.0	ND	-	-	85.0	-
7/6/2000	-	-	-	-	-	-	-	-	-	1.36
8/2/2000	740	450	21.0	2.0	140.0	1.0	180.0	38.0	87.0	1.58
7/19/2001	-	-	-	-	-	-	-	-	-	1.58
11/19/2002	-	-	-	-	-	-	-	-	-	1.13
1/13/2003	-	-	-	-	-	-	-	-	-	1.10
8/20/2003	880	490	21.0	2.1	140.0	1.5	190.0	33.0	83.0	1.13
1/7/2004	-	-	-	-	-	-	-	-	-	1.36
11/11/2005	-	-	-	-	-	-	-	-	-	1.36
1/4/2006	-	-	-	-	-	-	-	-	-	1.22
12/7/2006	870	470	21.0	1.9	140.0	2.0	190.0	36.0	84.0	1.22
1/10/2007	-	-	-	-	-	-	-	-	-	1.20
1/8/2008	-	-	-	-	-	-	-	-	-	1.22
8/12/2008	-	470	-	-	-	-	-	-	-	-
1/6/2009	-	-	-	-	-	-	-	-	-	1.52
2/3/2009	-	450	-	-	-	-	-	-	-	-
4/1/2009	-	-	25.0	2.9	-	-	-	-	-	-
5/11/2009	-	460	-	-	-	-	-	-	-	-
8/4/2009	-	450	-	-	-	-	-	-	-	-
1/7/2010	-	-	-	-	-	-	-	-	-	1.29
2/2/2010	-	480	-	-	-	-	-	-	-	-
5/6/2010	-	500	-	-	-	-	-	-	-	-
8/9/2010	-	490	-	-	-	-	-	-	-	-
11/10/2010	-	460	-	-	-	-	-	-	-	-
1/4/2011	-	-	-	-	-	-	-	-	-	1.31
2/2/2011	-	480	-	-	-	-	-	-	-	-
5/4/2011	-	470	-	-	-	-	-	-	-	-
8/4/2011	-	480	-	-	-	-	-	-	-	-
11/2/2011	-	460	-	-	-	-	-	-	-	-
1/17/2012	-	-	-	-	-	-	-	-	-	1.24
2/8/2012	-	480	-	-	-	-	-	-	-	-
5/3/2012	-	490	-	-	-	-	-	-	-	-
8/9/2012	-	440	-	-	-	-	-	-	-	-
11/2/2012	-	500	-	-	-	-	-	-	-	-
12/4/2012	950	500	24.0	2.5	150.0	1.7	190.0	45.0	92.0	1.31
1/10/2013	-	-	-	-	-	-	-	-	-	1.24
2/5/2013	-	490	-	-	-	-	-	-	-	-
5/2/2013	-	470	-	-	-	-	-	-	-	-
8/14/2013	-	460	-	-	-	-	-	-	-	-
11/5/2013	-	460	-	-	-	-	-	-	-	-

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
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TABLE D-4
Santa Margarita River Watershed
Water Quality Data

Wells Sampled by Rancho Califronia Water District

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
1/21/2014	-	-	-	-	-	-	-	-	-	1.33
2/5/2014	-	480	-	-	-	-	-	-	-	-
5/23/2014	-	560	-	-	-	-	-	-	-	-
6/26/2014	-	530	-	-	-	-	240.0	-	-	-
8/7/2014	-	480	-	-	-	-	-	-	-	-
11/5/2014	-	520	-	-	-	-	-	-	-	-
1/8/2015	-	-	-	-	-	-	-	-	-	1.47
2/6/2015	-	590	-	-	-	-	-	-	-	-
5/14/2015	-	490	-	-	-	-	-	-	-	-
8/6/2015	-	510	-	-	-	-	-	-	-	-
11/18/2015	-	490	-	-	-	-	-	-	-	-
12/9/2015	910	480	25.0	2.6	150.0	1.5	200.0	51.0	94.0	1.40
1/12/2016	-	-	-	-	-	-	-	-	-	1.50
2/10/2016	-	540	-	-	-	-	-	-	-	-
5/5/2016	-	520	-	-	-	-	-	-	-	-
8/2/2016	-	510	-	-	-	-	-	-	-	-
11/8/2016	-	520	-	-	-	-	-	-	-	-
1/17/2017	-	-	-	-	-	-	-	-	-	1.30
2/3/2017	-	500	-	-	-	-	-	-	-	-
5/3/2017	-	510	-	-	-	-	-	-	-	-
8/9/2017	-	510	-	-	-	-	-	-	-	-
11/2/2017	-	500	-	-	-	-	-	-	-	-
1/12/2018	-	-	-	-	-	-	-	-	-	1.30
2/28/2018	-	500	-	-	-	-	-	-	-	-
5/9/2018	-	520	-	-	-	-	-	-	-	-
8/14/2018	-	530	-	-	-	-	-	-	-	-
11/6/2018	-	510	-	-	-	-	-	-	-	-
12/14/2018	920	500	26.0	3.0	150.0	2.0	200.0	56.0	79.0	1.40
1/9/2019	-	-	-	-	-	-	-	-	-	1.50
2/20/2019	-	500	-	-	-	-	-	-	-	-
5/7/2019	-	520	-	-	-	-	-	-	-	-
8/27/2019	-	520	-	-	-	-	-	-	-	-
11/8/2019	-	520	-	-	-	-	-	-	-	-
1/8/2020	-	-	-	-	-	-	-	-	-	1.40
2/11/2020	-	-	-	-	-	-	-	-	-	1.40
2/12/2020	-	490	-	-	-	-	-	-	-	-
5/5/2020	-	500	-	-	-	-	-	-	-	-
8/7/2020	-	510	-	-	-	-	-	-	-	-
11/6/2020	-	510	-	-	-	-	-	-	-	-
1/12/2021	-	-	-	-	-	-	-	-	-	1.50
2/3/2021	-	500	-	-	-	-	-	-	-	-
12/7/2021	900	480	25.0	2.7	160.0	1.9	210.0	58.0	80.0	1.70
1/13/2022	-	-	-	-	-	-	-	-	-	1.50
2/2/2022	-	480	-	-	-	-	-	-	-	-
1/9/2023	-	-	-	-	-	-	-	-	-	1.60
2/16/2023	-	470	-	-	-	-	-	-	-	-

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
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TABLE D-5
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Indian Reservations
Cahuilla

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
7S/2E14M01										
12/14/1983	1,220	708	130.0	40.0	45.0	11.0	53.0	390.0	98.0	0.0
7S/2E-23H01										
5/18/2006	428	288	39.6	5.7	33.7	3.1	31.0	14.0	-	8.3
7S/2E-23Q01										
5/18/2006	245	160	15.6	2.6	26.6	2.5	29.5	5.4	-	1.1
7S/2E-26B03										
7/11/2007	296	197	23.7	3.0	31.0	2.9	33.9	7.6	76.0	1.8
7S/2E-33N1										
8/2/1989	355	206	16.0	2.1	53.0	3.5	48.0	15.0	78.0	0.7
7S/2E-36J01										
2/3/1984	-	252	43.0	4.4	36.0	4.8	32.0	5.4	-	3.4
7S-3E-14P03										
8/10/2005	1,080	741	113.0	42.4	70.0	9.7	66.8	296.0	-	0.2
7S-3E-20J05										
8/23/2007	753	466	49.4	7.1	89.2	3.2	87.9	83.6	110.0	6.9
7S/3E-21L01										
5/27/1953	750	-	66.0	20.0	70.0	-	67.0	76.0	-	-
8/2/1989	1,050	675	90.0	19.0	100.0	3.5	84.0	190.0	216.0	3.1
8/1/1990	1,020	610	87.0	18.0	100.0	3.4	85.0	180.0	217.0	3.0
7/17/1991	995	636	93.0	18.0	100.0	3.7	95.0	180.0	206.0	2.5
8/23/2007	1,040	677	96.1	20.2	90.9	3.7	96.2	169.0	190.0	3.4
7S/3E-31L02										
2/3/1984	-	184	23.0	4.8	24.0	2.9	24.0	ND	-	2.0
7S/3E-31N01										
7/27/1984	684	412	69.0	12.0	37.0	-	75.0	12.0	-	-
7S/3E-34E01										
7/7/1976	-	-	25.0	4.6	21.0	4.2	26.0	7.3	-	4.0
9/22/1977	-	-	25.0	4.9	23.0	4.4	25.0	6.9	-	-
7/19/1978	-	-	26.0	5.1	22.0	4.5	24.0	6.5	-	3.7
6/28/1979	-	190	26.0	5.0	22.0	4.3	24.0	6.0	-	-
7/2/1980	-	-	26.0	4.9	23.0	4.7	28.0	6.9	-	3.7
7/8/1981	309	-	27.0	5.0	23.0	4.7	26.0	7.7	81.0	4.1
6/29/1982	311	-	27.0	5.3	27.0	4.9	27.0	10.0	88.0	4.0
8/10/1983	306	-	27.0	5.0	23.0	4.8	29.0	7.7	90.0	3.8
8/21/1984	319	-	30.0	5.3	24.0	4.3	29.0	7.2	92.0	3.7
8/1/1985	321	-	28.0	5.2	24.0	4.6	29.0	7.0	86.0	3.5
8/14/1987	332	207	29.0	5.6	25.0	4.8	28.0	8.0	96.0	3.5
7/20/1989	338	204	30.0	5.6	26.0	5.0	29.0	7.0	98.0	3.3
7/16/1991	335	209	31.0	5.9	26.0	4.7	32.0	6.3	99.0	3.5
7/31/1991	337	109	31.0	5.5	25.0	4.5	31.0	6.3	99.0	3.5
8S/2E-4P01										
1/21/1986	1,870	-	190.0	54.0	64.0	7.9	480.0	13.0	136.0	4.0
5/18/2006	794	441	59.8	19.3	44.1	4.4	101.0	10.4	-	5.5
8S/3E-2A01										
2/5/1986	591	-	54.0	11.0	43.0	3.2	93.0	21.0	103.0	3.4
8S/3E-2D01										
7/8/1981	293	-	17.0	2.2	39.0	1.7	30.0	8.8	68.0	2.5
7/24/1985	279	-	11.0	1.2	42.0	1.5	28.0	8.0	71.0	2.1

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TABLE D-5
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Indian Reservations
Cahuilla

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
8S/3E-2E01										
12/7/1950	-	-	30.0	10.0	53.0	-	50.0	14.0	-	-
11/15/1951	-	-	38.0	8.0	43.0	-	50.0	6.0	-	-
5/27/1976	-	-	39.0	9.4	32.0	2.2	49.0	12.0	-	4.9
9/22/1977	-	280	39.0	9.6	33.0	2.6	42.0	8.4	-	-
7/19/1978	-	-	42.0	10.0	36.0	2.4	57.0	13.0	-	5.7
6/28/1979	-	284	40.0	9.0	32.0	2.8	42.0	9.0	-	-
7/2/1980	-	-	34.0	6.5	22.0	2.4	27.0	7.4	-	-
7/8/1981	296	-	33.0	4.8	19.0	1.9	36.0	1.0	61.0	2.0
6/29/1982	494	-	43.0	9.7	41.0	3.0	54.0	14.0	127.0	5.7
7/26/1983	427	-	40.0	9.6	32.0	3.0	42.0	9.7	131.0	4.8
8/21/1984	428	-	42.0	9.3	32.0	2.9	39.0	9.6	129.0	4.7
8/13/1987	428	276	39.0	9.4	32.0	3.2	37.0	9.6	129.0	4.6
8/10/2005	424	283	42.4	10.2	33.6	3.4	39.9	9.1	-	4.9
8S/3E-2K01										
9/22/1977	-	-	43.0	10.0	48.0	3.2	65.0	18.0	-	-
7/19/1978	-	-	42.0	9.8	48.0	3.4	68.0	17.0	-	3.7
6/28/1979	-	342	46.0	10.0	46.0	3.1	69.0	19.0	-	-
7/2/1980	-	-	64.0	12.0	92.0	2.7	140.0	48.0	-	4.1
6/29/1982	454	-	41.0	10.0	38.0	3.7	46.0	13.0	129.0	3.6
8/10/1983	435	-	39.0	9.5	32.0	3.6	43.0	13.0	133.0	3.6
8/21/1984	561	-	50.0	11.0	48.0	3.1	68.0	27.0	139.0	4.0
8/1/1985	472	-	41.0	9.7	34.0	3.4	48.0	15.0	125.0	3.7
8/13/1987	451	282	40.0	9.9	31.0	3.4	41.0	16.0	133.0	3.6
7/20/1989	531	323	46.0	11.0	41.0	3.4	60.0	22.0	136.0	3.6
8/1/1990	508	310	46.0	11.0	38.0	3.3	60.0	19.0	134.0	3.8
7/16/1991	522	306	50.0	10.0	39.0	3.3	61.0	21.0	139.0	3.7

NOTES:
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TABLE D-5
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Indian Reservations
Pechanga

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
8S/2W-28M03										
8/26/1999	562	319	38.0	13.0	52.0	0.8	68.0	15.0	-	2.6
8/12/2003	534	344	40.7	14.7	53.5	0.9	58.9	14.1	-	4.2
8/19/2004	708	440	61.4	22.5	51.0	0.9	87.6	52.0	-	6.2
8/2/2005	746	459	69.7	26.9	44.3	1.0	87.8	61.8	-	5.1
8/2/2006	678	413	55.9	21.0	42.6	0.9	74.9	43.1	153.0	8.3
9/4/2007	663	392	53.7	19.5	51.1	0.9	70.1	32.1	158.0	8.3
8S/2W-28M05										
9/1/2009	457	253	10.7	0.5	77.7	0.5	65.6	17.4	91.0	0.1
7/26/2010	-	261	11.0	0.9	83.3	0.5	78.3	17.1	-	0.0
8/31/2011	482	272	10.7	1.0	86.0	0.5	77.8	16.9	88.0	0.0
8/13/2013	475	281	12.3	1.1	81.9	0.5	77.6	15.8	87.9	ND
9/17/2014	475	256	10.9	1.0	83.9	0.5	74.2	15.1	85.9	0.0
7/29/2015	459	255	10.0	1.0	79.8	0.4	72.9	15.8	85.0	ND
8/10/2016	487	271	13.3	1.3	91.6	0.4	76.5	15.4	105.0	ND
7/19/2017	465	262	11.2	0.9	85.4	0.5	73.2	15.4	96.5	ND
7/31/2018	467	260	11.5	1.0	83.2	0.4	73.1	14.9	100.0	ND
7/30/2019	470	261	11.3	0.9	86.1	0.5	76.0	15.7	100.0	ND
7/8/2020	460	258	10.7	0.8	88.2	0.4	74.4	15.2	97.5	ND
8/25/2021	473	263	10.7	0.8	87.4	0.6	77.8	16.1	101.9	ND
7/18/2022	482	261	10.7	0.7	86.7	0.6	75.9	15.3	94.3	0.0
7/24/2023	470	256	10.6	0.8	86.8	0.4	75.7	15.5	96.4	ND
8S/2W-28Q02										
10/5/1989	629	378	48.0	19.0	49.0	0.7	76.0	14.0	169.0	4.2
7/26/1990	613	383	48.0	18.0	47.0	0.6	75.0	12.0	171.0	3.9
7/18/1991	618	379	49.0	18.0	49.0	0.7	83.0	14.0	172.0	3.0
7/28/1993	620	400	51.0	20.0	47.0	0.7	63.0	15.0	174.0	9.6
8/17/1994	641	396	51.0	21.0	50.0	0.8	60.0	17.0	179.0	11.0
8/31/1995	653	396	53.0	21.0	48.0	0.7	60.0	19.0	184.0	12.0
8/28/1996	-	-	-	-	-	-	-	-	-	11.0
8/12/1997	614	411	47.0	19.0	47.0	0.7	63.0	15.0	176.0	8.9
8/19/1998	625	402	47.0	20.0	47.0	0.7	60.0	14.0	-	9.9
8/21/2002	598	394	47.0	19.0	46.0	0.7	64.0	15.0	-	8.5
8/12/2003	604	405	48.8	19.8	47.8	0.7	69.1	14.0	-	7.1
8/18/2004	615	386	51.6	20.2	45.6	0.9	78.8	16.5	-	4.0
8/2/2005	822	514	76.8	30.2	54.0	0.8	93.7	30.9	-	14.7
8S/2W-28R01										
8/3/1989	495	286	41.0	4.0	60.0	0.9	37.0	13.0	177.0	1.1
7/26/1990	525	296	48.0	4.8	54.0	1.0	45.0	14.0	191.0	1.5
7/17/1991	462	261	31.0	3.2	66.0	0.8	44.0	12.0	155.0	0.8
7/27/1993	445	269	44.0	4.4	43.0	0.5	28.0	14.0	170.0	1.9
8/15/1994	421	232	32.0	3.3	55.0	0.9	28.0	11.0	156.0	1.5
8/30/1995	375	200	21.0	2.2	55.0	0.6	31.0	11.0	129.0	0.7
8/27/1996	-	-	-	-	-	-	-	-	-	1.5
8/13/1997	398	241	20.0	2.1	59.0	0.6	37.0	11.0	130.0	0.6
8/20/1998	481	282	36.0	3.9	60.0	0.9	38.0	14.0	167.0	1.1
8/25/1999	446	252	28.0	3.1	59.0	0.7	41.0	12.0	-	0.8
8/22/2000	456	265	29.0	3.3	61.0	0.7	39.0	14.0	-	0.8
8/21/2001	522	320	51.0	5.9	48.0	1.0	42.0	16.0	-	1.7
8/21/2002	457	284	33.0	3.7	61.0	0.9	41.0	13.0	-	1.1
8/12/2003	518	330	55.0	6.5	50.4	1.1	39.7	14.3	-	1.9
8/18/2004	516	317	56.8	6.2	47.9	1.4	42.6	14.2	-	1.6
8/3/2005	541	333	60.5	6.5	45.3	1.2	40.2	14.1	-	2.2
9/10/2008	480	278	37.2	4.7	62.4	1.1	41.2	11.4	160.0	-
8/4/2009	543	329	50.0	5.5	55.5	1.1	38.7	18.4	194.0	1.8
7/26/2010	564	335	58.3	6.6	49.9	1.1	41.9	18.7	203.0	2.2
8/22/2011	548	357	55.0	6.8	52.9	1.1	41.3	18.8	187.0	2.4
8/21/2012	507	287	44.7	5.2	60.5	1.0	39.2	17.4	178.0	1.9
7/24/2013	498	302	43.9	4.9	60.6	0.9	39.8	17.6	178.0	1.7
9/17/2014	592	339	59.3	7.2	54.7	1.2	43.4	20.8	206.0	2.3
7/29/2015	589	364	64.5	7.8	55.9	1.2	44.9	20.6	212.0	2.4
8/10/2016	587	356	62.6	7.5	54.0	1.1	44.9	19.8	257.7	2.6
7/19/2017	546	324	54.1	6.3	53.9	1.1	47.8	15.9	230.0	1.3
7/31/2018	525	309	45.9	5.3	58.9	1.0	47.5	15.7	208.0	0.2
7/30/2019	408	232	17.6	2.1	68.3	0.7	53.2	8.8	133.0	0.0

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-5
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Indian Reservations
Pechanga

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
7/8/2020	443	253	27.2	2.9	68.9	0.9	49.8	11.0	159.0	0.3
7/20/2021	476	281	33.2	3.5	67.3	1.0	49.0	12.8	183.0	0.6
7/18/2022	482	289	33.6	3.6	68.3	0.9	46.5	14.0	193.3	0.5
7/24/2023	460	446	61.1	15.3	73.2	2.2	80.4	81.9	199.9	1.8
8S/2W-29A01										
8/2/1989	346	207	31.0	11.0	24.0	0.4	18.0	7.0	131.0	2.0
7/24/1990	354	193	32.0	11.0	25.0	0.4	24.0	6.7	133.0	2.0
7/18/1991	361	194	32.0	10.0	26.0	0.4	25.0	6.0	134.0	1.8
8/15/1994	363	216	33.0	12.0	25.0	0.5	24.0	7.7	132.0	2.6
8/31/1995	363	208	32.0	11.0	23.0	0.4	21.0	8.1	137.0	2.6
8/28/1996	-	-	-	-	-	-	-	-	-	2.9
8/12/1997	368	238	32.0	12.0	24.0	0.4	22.0	7.4	138.0	3.1
8/19/1998	411	246	36.0	11.0	31.0	0.5	25.0	8.2	153.0	2.9
8/25/1999	375	222	33.0	12.0	23.0	0.4	20.0	6.7	-	3.8
8/22/2000	374	237	33.0	12.0	24.0	0.4	18.0	7.3	-	3.5
8/21/2001	374	236	34.0	12.0	24.0	0.5	20.0	7.3	-	3.6
8/2/2005	382	243	38.7	11.6	27.1	0.5	27.6	7.7	-	2.8
8S/2W-29A02										
8/2/2006	392	242	36.2	10.9	26.6	0.4	29.4	7.9	139.0	2.6
8/4/2009	394	245	29.8	11.3	32.2	0.6	34.5	7.4	133.0	0.8
7/26/2010	-	268	37.5	11.9	32.5	0.6	38.5	12.9	-	2.4
8/22/2011	434	299	35.9	12.0	35.7	0.6	41.9	12.7	132.0	2.1
8/21/2012	465	298	42.0	13.2	38.1	0.6	42.4	15.8	148.0	2.7
7/24/2013	464	297	39.7	13.6	37.0	0.6	45.6	16.3	147.0	2.6
9/17/2014	481	284	38.7	13.2	36.4	0.6	46.0	16.3	145.0	2.5
7/29/2015	485	298	41.3	14.4	38.5	0.6	47.9	18.6	146.0	2.7
8/10/2016	522	317	47.4	14.4	42.0	0.4	52.0	22.9	179.8	3.8
7/19/2017	505	311	44.6	13.9	38.2	0.7	49.7	20.9	175.0	3.4
7/31/2018	521	333	46.4	14.9	39.0	0.5	51.3	22.9	178.0	0.8
7/30/2019	526	324	46.6	15.4	40.2	0.7	54.2	23.6	179.0	3.6
7/8/2020	407	257	32.7	13.6	37.2	0.7	40.2	8.3	163.0	1.0
7/20/2021	406	253	31.2	13.0	35.1	0.8	41.4	8.7	159.3	1.0
7/18/2022	411	258	32.6	13.8	36.0	0.8	40.6	8.7	164.2	1.1
7/24/2023	591	355	55.4	17.9	41.7	0.5	60.8	31.6	195.5	4.0
8S/2W-29B02										
3/1/1990	456	257	5.5	0.1	89.0	0.8	66.0	22.0	100.0	-
3/6/1990	456	256	5.9	0.1	90.0	0.7	66.0	20.0	99.0	ND
8S/2W-29B03										
3/6/1990	478	275	14.0	1.9	84.0	0.8	65.0	16.0	123.0	ND
8S/2W-29B05										
3/2/1990	397	229	29.0	9.5	43.0	1.2	35.0	4.9	141.0	1.8
8S/2W-29B06										
3/2/1990	406	259	34.0	11.0	38.0	0.8	38.0	10.0	143.0	-
3/6/1990	427	240	32.0	11.0	40.0	1.0	40.0	8.1	148.0	1.2
8S/2W-29B07										
3/7/1990	396	230	8.6	2.5	71.0	0.9	51.0	11.0	102.0	ND
8/16/1990	371	199	8.4	1.8	69.0	0.8	50.0	14.0	106.0	ND
8S/2W-29B08										
3/7/1990	464	272	31.0	9.4	52.0	1.2	58.0	12.0	134.0	0.5
8/16/1990	458	261	34.0	9.1	48.0	1.1	59.0	17.0	135.0	0.4
8S/2W-29B09										
3/7/1990	343	210	21.0	9.2	39.0	1.0	24.0	6.7	131.0	1.3
8/17/1990	317	197	26.0	10.0	26.0	1.1	22.0	3.4	130.0	1.6
8S/2W-29B10										
8/19/1998	367	223	12.0	0.6	75.0	0.6	50.0	10.0	121.0	ND
8/26/1999	393	219	12.0	0.7	68.0	0.6	46.0	11.0	-	ND
8/22/2000	393	228	12.0	0.8	69.0	0.6	43.0	11.0	-	ND
8/21/2001	398	231	11.0	0.6	72.0	0.6	49.0	15.0	-	0.0

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-5
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Indian Reservations
Pechanga

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
8/12/2003	387	239	11.3	0.6	75.1	0.6	47.2	18.4	-	2.4
8/18/2004	390	232	11.2	0.6	72.6	0.6	48.0	20.8	-	ND
8/2/2005	404	242	12.5	0.7	69.9	0.7	47.2	23.2	-	ND
8/3/2006	381	222	12.3	0.8	62.8	0.5	40.3	17.3	110.0	ND
9/4/2007	430	237	12.1	0.7	78.3	0.7	47.2	27.5	107.0	ND
9/15/2008	420	242	11.2	0.7	77.3	0.6	45.3	29.6	106.0	0.0
8/4/2009	381	217	12.1	0.8	66.0	0.6	39.9	23.7	108.0	0.0
7/26/2010	394	220	11.4	0.7	71.6	0.6	42.2	26.0	107.0	0.0
8/22/2011	421	265	11.5	0.7	75.5	0.6	45.5	31.0	99.0	0.0
8/21/2012	432	245	12.8	0.7	82.4	0.6	47.1	34.9	106.0	ND
7/24/2013	451	264	13.6	0.8	83.6	0.6	49.2	43.1	107.0	ND
9/17/2014	490	274	14.8	0.9	84.8	0.7	51.1	52.0	105.0	0.0
7/29/2015	498	289	16.2	1.0	91.7	0.8	52.9	56.5	107.0	ND
8/10/2016	535	315	18.2	1.0	92.5	0.6	55.3	65.8	121.0	ND
7/19/2017	544	324	20.3	1.1	93.4	0.8	56.2	69.1	123.0	ND
7/31/2018	553	330	22.5	1.2	92.8	0.7	56.7	72.0	124.0	0.0
7/30/2019	577	337	24.3	1.4	96.2	0.8	59.1	79.9	129.0	0.1
7/8/2020	586	347	28.3	1.6	97.3	0.9	61.6	79.3	134.0	0.1
7/20/2021	583	351	25.9	1.4	98.5	0.9	60.8	84.3	133.2	0.1
7/18/2022	593	366	26.7	1.4	97.4	0.9	60.4	84.3	136.1	0.0
7/24/2023	596	342	22.2	0.9	104.1	0.7	60.7	87.6	128.9	ND
8S/2W-29B11										
8/2/2006	483	285	30.1	7.8	51.5	0.9	57.1	11.8	138.0	1.4
8/4/2009	497	281	33.0	8.5	51.0	1.0	52.6	16.6	140.0	2.3
7/26/2010	-	287	34.7	9.1	53.4	1.1	56.8	15.3	-	2.3
8/22/2011	482	308	32.7	9.5	53.0	1.0	54.2	16.0	131.0	2.5
8/21/2012	492	300	35.9	10.0	55.9	1.0	54.3	17.9	142.0	2.7
7/24/2013	505	300	36.2	10.1	57.2	1.1	54.5	20.4	144.0	2.8
9/17/2014	542	315	37.1	10.4	55.3	1.1	56.2	23.9	145.0	3.1
7/29/2015	530	315	39.9	11.3	56.4	1.2	56.5	24.8	146.0	2.8
8/10/2016	530	313	40.4	10.9	58.0	1.0	57.5	24.6	173.5	3.0
7/19/2017	536	314	39.9	10.6	55.1	1.2	58.5	24.5	174.0	2.9
7/31/2018	540	335	39.7	11.1	55.5	1.1	59.9	24.5	174.0	0.6
7/30/2019	542	323	40.7	11.4	56.4	1.2	62.4	25.6	171.0	2.6
7/8/2020	549	326	42.6	11.6	59.0	1.1	64.5	26.0	171.0	2.6
7/20/2021	561	345	42.9	12.0	59.2	1.2	68.3	29.0	172.5	2.7
7/18/2022	582	341	46.1	12.5	58.7	1.2	70.3	31.0	175.2	2.8
7/24/2023	603	365	47.8	13.6	58.3	1.1	72.2	33.2	181.1	2.7
8S/2W-29F3										
8/3/2006	378	251	21.9	7.7	38.9	1.9	47.2	10.4	104.0	0.5
8S/2W-29J02										
8/26/1999	565	329	39.0	15.0	47.0	1.6	66.0	14.0	-	2.7
8/22/2000	562	337	39.0	15.0	47.0	1.5	65.0	14.0	-	2.7
8/21/2001	574	351	40.0	15.0	50.0	1.6	70.0	15.0	-	2.6
8/21/2002	554	345	41.0	16.0	50.0	1.8	68.0	14.0	-	2.9
8/12/2003	592	372	45.4	16.6	54.2	1.7	78.2	15.4	-	2.4
8/19/2004	598	362	48.8	16.9	-	1.9	80.0	17.0	-	3.1
8S/2W-29J03										
8/2/2006	532	337	40.3	13.2	43.1	1.3	44.8	17.5	152.0	8.5
8S/2W-34B04										
10/5/1989	617	371	51.0	8.2	67.0	1.0	58.0	30.0	192.0	0.5
7/26/1990	605	341	50.0	8.0	65.0	1.0	61.0	31.0	194.0	0.5
7/18/1991	564	339	46.0	7.4	67.0	1.0	53.0	27.0	185.0	0.9
7/27/1993	267	170	18.0	2.8	34.0	0.5	14.0	9.7	96.0	1.1
8S/2W-35D01										
8/3/1989	660	358	43.0	5.5	87.0	1.2	78.0	35.0	169.0	0.4
7/26/1990	669	384	41.0	4.9	92.0	1.5	82.0	36.0	176.0	0.4
7/17/1991	641	371	40.0	4.4	98.0	1.7	81.0	36.0	175.0	0.4
7/27/1993	638	374	49.0	5.9	79.0	1.8	71.0	27.0	199.0	0.3
8/16/1994	601	334	30.0	3.2	95.0	1.5	71.0	29.0	163.0	0.2
8/30/1995	587	322	33.0	4.0	81.0	1.5	68.0	25.0	178.0	0.1
8/27/1996	596	352	28.0	3.3	92.0	1.4	72.0	29.0	167.0	0.1

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-6
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
Well 2201										
10/1/1960	1,060	639	66.5	24.0	116.0	4.5	160.0	110.0	264.0	-
6/1/1962	1,190	718	60.0	33.2	123.0	3.8	190.0	124.0	232.0	0.3
7/1/1964	1,217	734	79.2	27.8	144.0	1.6	180.0	150.0	248.9	-
5/1/1965	1,485	896	75.2	30.3	158.0	2.4	180.0	120.0	253.8	ND
1/1/1966	-	808	76.8	33.2	157.0	3.4	170.0	180.0	292.8	0.1
6/1/1966	-	684	75.2	26.8	112.0	2.4	128.0	148.0	263.5	0.9
1/1/1967	-	856	81.6	26.3	138.0	3.5	162.0	140.0	310.0	0.7
8/1/1967	-	880	99.2	38.1	156.0	3.6	160.0	230.0	322.1	1.2
2/1/1968	-	768	65.6	25.4	156.0	3.4	160.0	164.0	236.7	ND
4/1/1969	-	852	66.0	32.0	162.0	3.2	166.0	210.0	249.0	ND
11/1/1969	-	844	87.0	31.0	140.0	3.6	164.0	180.0	262.0	ND
7/1/1970	-	672	99.0	32.0	139.0	3.0	158.0	205.0	259.0	0.6
12/1/1970	1,180	712	83.0	28.0	138.0	3.0	166.0	170.0	266.0	ND
9/1/1971	1,062	640	83.0	27.0	128.0	2.8	136.0	175.0	278.0	0.1
5/1/1972	1,130	681	56.0	24.0	140.0	2.8	136.0	165.0	220.0	ND
10/1/1972	1,165	703	64.0	27.0	159.0	3.6	132.0	180.0	293.0	0.4
10/1/1973	1,140	688	72.0	27.0	131.0	3.8	144.0	190.0	200.0	0.3
2/1/1976	1,140	688	70.4	28.3	143.0	3.1	132.0	182.0	273.3	1.8
9/1/1976	1,100	663	67.0	25.0	152.0	2.5	152.0	131.0	327.0	2.8
3/1/1977	1,080	651	67.0	28.0	173.0	3.1	128.0	160.0	254.0	4.4
10/1/1978	1,150	694	70.0	25.0	120.0	3.5	139.0	145.0	253.8	ND
6/1/1979	1,100	663	72.0	27.3	125.0	3.0	134.0	142.0	258.6	ND
10/1/1980	1,200	693	78.8	23.7	136.0	3.3	172.0	136.0	273.3	0.2
4/1/1981	1,160	737	82.4	22.4	126.0	3.6	140.0	134.0	268.4	ND
11/1/1981	1,300	863	97.6	31.5	169.0	2.2	204.0	209.0	248.9	0.8
5/1/1982	1,100	663	80.8	26.6	140.0	1.5	181.0	138.0	268.4	ND
3/1/1983	1,000	603	84.0	20.5	144.0	3.2	152.0	143.0	273.3	ND
5/1/1984	1,150	694	80.0	27.6	126.0	3.1	133.0	150.0	283.0	0.2
6/1/1985	1,100	680	89.0	26.0	140.0	3.0	150.0	64.0	440.0	ND
9/1/1985	1,242	724	78.0	28.0	122.0	6.0	154.0	149.1	244.4	ND
5/1/1986	1,387	750	85.2	29.1	130.7	4.3	166.0	130.8	242.6	ND
6/1/1989	1,302	734	78.1	23.0	85.9	-	136.0	145.0	212.0	ND
1/1/1991	1,271	-	81.0	36.1	152.0	-	166.0	-	-	ND
6/1/1991	1,290	752	99.0	32.4	133.0	-	167.0	136.0	237.0	ND
3/1/1992	1,210	792	91.0	29.8	146.0	-	159.0	135.0	279.0	ND
6/1/1993	1,290	764	68.3	27.5	149.0	-	168.0	130.0	265.0	ND
3/1/1994	1,210	783	100.0	37.1	100.0	-	145.0	167.0	-	0.5
8/1/1994	1,160	741	87.5	35.5	96.1	-	141.0	187.0	-	1.0
6/29/1995	1,330	806	97.7	37.4	142.0	-	207.0	166.0	-	ND
1/1/1996	1,300	764	91.0	33.0	140.0	-	177.0	142.0	363.0	-
6/1/1996	1,300	751	93.0	30.0	130.0	-	164.0	156.0	252.0	-
6/1/1997	1,215	758	88.0	29.0	130.0	ND	151.0	148.0	292.0	ND
12/29/1997	1,200	690	81.0	29.0	140.0	3.0	155.0	150.0	250.0	ND
4/16/1998	1,200	790	83.0	31.0	101.0	3.0	165.0	156.0	240.0	ND
6/10/1998	1,230	714	85.0	30.0	136.0	3.0	163.0	158.0	293.0	ND
2/1/1999	1,250	731	84.0	29.0	127.0	3.0	160.0	140.0	281.0	ND
4/28/1999	1,220	769	88.0	30.0	127.0	3.0	168.0	160.0	317.0	ND
5/21/2001	1,300	794	98.0	36.0	130.0	3.0	173.0	179.0	317.0	ND
Well 2202										
9/10/2001	1,410	819	101.0	38.0	138.0	3.0	173.0	175.0	296.0	ND
10/29/2001	1,370	814	104.0	38.0	131.0	3.0	199.0	198.0	317.0	ND
2/21/2002	1,380	834	99.0	36.0	128.0	3.0	172.0	183.0	318.0	ND
4/18/2002	1,370	808	104.0	39.0	124.0	3.2	180.0	184.0	258.0	ND
7/18/2002	1,450	829	101.0	37.0	137.0	3.3	187.0	193.0	260.0	ND
10/1/2002	1,400	793	98.0	35.0	143.0	3.4	179.0	195.0	248.0	ND
1/1/2003	1,300	806	94.0	33.0	144.0	2.0	163.0	180.0	235.0	ND
4/2/2003	1,290	759	94.0	33.0	137.0	3.1	182.0	198.0	230.0	ND
4/4/2003	1,290	759	94.0	32.0	137.0	3.1	182.0	198.0	230.0	ND
10/1/2003	1,340	761	90.0	31.0	146.0	4.0	162.0	188.0	210.0	ND
1/4/2004	1,320	743	94.0	32.0	124.0	5.0	182.0	212.0	203.0	ND
4/4/2004	1,350	731	90.0	32.0	127.0	5.0	184.0	197.0	235.0	ND
7/1/2004	1,100	773	91.0	32.0	98.0	5.0	167.0	197.0	215.0	ND
10/1/2004	1,290	826	93.0	32.0	106.0	5.0	187.0	185.0	-	ND
2/1/2005	1,260	735	101.0	35.0	127.0	3.7	175.0	188.0	215.0	ND
4/1/2005	1,300	760	98.0	33.0	122.0	2.8	160.0	184.0	200.0	ND
7/1/2005	1,450	1,260	97.0	33.0	119.0	2.9	154.0	-	200.0	ND

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-6
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
11/1/2005	1,240	795	99.0	32.0	122.0	2.9	159.0	169.0	202.0	ND
6/1/2006	1,300	796	95.0	34.0	140.0	2.9	180.0	170.0	250.0	ND
4/1/2007	1,080	764	91.0	31.0	130.0	2.9	190.0	190.0	250.0	ND
4/1/2008	1,260	694	80.0	29.0	140.0	2.7	180.0	150.0	286.0	ND
Well 23001										
3/22/2018	1,200	770	92.0	31.0	120.0	2.2	160.0	200.0	220.0	ND
3/15/2019	1,300	790	98.0	34.0	130.0	2.8	170.0	220.0	240.0	ND
5/28/2020	1,300	800	94.0	33.0	110.0	2.8	170.0	210.0	240.0	ND
3/18/2021	1,200	770	100.0	35.0	110.0	2.9	170.0	220.0	240.0	ND
7/21/2022	1,300	820	110.0	37.0	120.0	3.1	180.0	230.0	-	ND
Well 2301										
5/1/1956	1,090	685	61.5	24.3	142.0	-	142.0	110.0	293.0	0.0
12/1/1956	1,060	666	67.0	27.0	96.0	-	124.0	85.0	274.0	-
12/1/1957	-	780	66.3	23.9	159.0	-	138.0	155.0	308.0	2.4
5/1/1959	1,100	691	75.2	25.3	112.0	-	136.0	152.0	297.7	-
1/1/1960	1,120	704	72.7	27.3	116.5	-	112.0	144.0	291.0	-
10/1/1960	1,045	657	63.2	21.4	99.0	3.6	140.0	112.0	242.0	-
5/1/1961	1,280	770	76.0	36.5	136.0	3.0	124.0	195.0	299.6	-
5/1/1962	1,133	712	68.8	30.3	136.0	2.0	128.0	175.0	275.7	-
1/1/1963	1,111	698	72.0	35.1	127.0	2.8	128.0	199.0	268.4	-
6/1/1963	1,108	696	78.4	25.4	118.0	2.9	148.0	130.0	258.6	-
7/1/1964	1,165	732	74.4	27.8	128.0	1.2	139.0	160.0	268.4	-
5/1/1965	1,130	710	80.0	26.4	145.0	2.1	148.0	120.0	268.4	0.0
1/1/1966	-	736	88.0	18.1	142.0	2.8	124.0	155.0	263.5	0.4
6/1/1966	-	736	75.2	29.3	138.0	2.7	145.0	175.0	295.2	1.1
1/1/1967	-	744	76.8	25.9	118.0	3.0	136.0	125.0	287.9	0.5
8/1/1967	-	680	70.4	28.3	128.0	2.3	140.0	100.0	292.8	1.9
2/1/1968	-	660	48.0	19.5	130.0	2.8	124.0	119.0	234.0	1.4
4/1/1969	-	708	70.0	28.0	126.0	2.5	128.0	170.0	278.0	-
11/1/1969	-	684	73.0	28.0	126.0	2.8	138.0	165.0	273.0	-
5/1/1970	-	716	74.0	25.0	122.0	0.1	134.0	170.0	210.0	1.0
12/1/1970	1,090	385	78.0	25.0	126.0	2.6	142.0	170.0	250.0	0.7
9/1/1971	1,025	644	75.0	38.0	120.0	2.7	124.0	190.0	229.0	0.2
5/1/1972	1,050	660	75.0	21.0	124.0	2.3	124.0	155.0	244.0	0.5
10/1/1973	1,140	716	74.0	22.0	128.0	2.8	136.0	160.0	220.0	0.5
6/1/1974	1,060	680	74.0	13.0	131.0	2.9	158.0	138.0	220.0	0.0
2/1/1976	1,050	660	73.6	25.4	136.0	2.9	119.0	170.0	248.9	2.0
9/1/1976	1,100	691	58.0	32.0	146.0	2.6	140.0	148.0	321.8	2.6
3/1/1977	1,080	679	69.0	29.0	110.0	3.0	128.0	155.0	259.0	4.3
1/1/1978	1,100	691	70.0	23.0	147.0	3.0	140.0	135.0	259.0	4.4
10/1/1978	1,150	723	74.0	22.0	120.0	2.9	134.0	149.0	248.9	ND
4/1/1979	1,000	628	70.4	22.4	118.0	2.6	122.0	138.0	239.1	ND
10/1/1980	1,150	745	74.0	22.5	128.0	3.0	152.0	138.0	239.1	0.2
5/1/1981	1,020	580	67.2	17.3	116.0	3.1	132.0	111.0	205.0	ND
3/1/1983	900	599	65.6	19.5	129.0	2.8	136.0	129.0	234.2	ND
12/1/1983	1,000	628	72.4	22.4	127.0	2.6	140.0	150.0	249.0	ND
5/1/1984	1,100	691	78.8	25.9	120.0	2.8	130.0	150.0	254.0	0.2
6/1/1985	1,100	691	59.0	26.0	130.0	3.0	140.0	70.0	440.0	0.8
9/1/1985	1,203	705	66.0	26.0	110.0	6.0	150.0	144.0	226.6	ND
6/1/1989	1,139	662	71.5	21.7	80.8	-	117.0	128.0	209.0	ND
1/1/1990	1,150	632	90.6	32.4	102.0	-	160.0	170.0	214.0	ND
1/1/1991	1,112	-	73.7	32.0	128.0	-	136.0	136.0	-	ND
6/1/1991	1,090	662	87.4	29.7	117.0	-	140.0	121.0	204.0	ND
3/1/1992	1,080	644	74.2	25.8	133.0	-	127.0	118.0	282.0	0.3
3/1/1993	1,210	674	72.8	24.5	117.0	-	127.0	124.0	261.0	ND
6/1/1993	1,090	670	63.9	25.7	119.0	-	117.0	128.0	237.0	ND
3/1/1994	1,120	683	73.9	27.0	121.0	-	141.0	130.0	-	ND
8/1/1994	1,160	707	78.9	28.2	129.0	-	139.0	153.0	-	ND
6/29/1995	1,160	742	88.2	28.8	131.0	-	165.0	147.0	-	ND
1/1/1996	1,300	690	79.0	29.0	140.0	-	147.0	131.0	292.0	-
6/1/1996	1,020	674	82.0	29.0	120.0	-	134.0	129.0	204.0	-
2/1/1997	1,100	650	74.0	27.0	150.0	-	126.0	172.0	245.0	ND
3/1/1997	1,073	630	77.0	28.0	130.0	-	142.0	134.0	254.0	ND
2/1/1999	1,180	647	75.0	27.0	125.0	3.0	150.0	130.0	272.0	ND
4/28/1999	1,240	722	81.0	30.0	124.0	3.0	157.0	150.0	293.0	ND
8/18/1999	1,180	735	79.0	29.0	120.0	3.0	190.0	183.0	281.0	ND

NOTES:
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TABLE D-6
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
12/8/1999	1,190	699	83.0	30.0	118.0	3.0	100.0	158.0	278.0	ND
2/3/2000	1,110	723	81.0	30.0	116.0	3.0	90.0	163.0	293.0	ND
5/10/2000	1,070	714	81.0	29.0	115.0	3.0	170.0	152.0	273.0	ND
8/17/2000	1,200	735	80.0	29.0	117.0	3.0	150.0	118.0	275.0	ND
2/21/2001	1,230	730	84.0	31.0	132.0	-	158.0	158.0	293.0	ND
4/18/2001	1,190	636	81.0	30.0	123.0	3.0	146.0	148.0	287.0	ND
9/5/2001	1,300	751	88.0	32.0	132.0	3.0	155.0	160.0	293.0	ND
10/25/2001	1,380	757	88.0	33.0	133.0	3.0	152.0	159.0	311.0	ND
2/6/2002	1,220	724	86.0	31.0	124.0	2.6	146.0	156.0	293.0	ND
4/10/2002	1,210	726	89.0	32.0	124.0	2.8	151.0	162.0	240.0	-
7/18/2002	1,280	735	85.0	31.0	129.0	3.1	155.0	165.0	236.0	ND
10/1/2002	1,300	701	87.0	31.0	141.0	2.9	157.0	170.0	257.0	ND
1/1/2003	1,260	760	88.0	32.0	139.0	3.5	146.0	162.0	239.0	ND
2/3/2003	-	-	68.0	32.0	139.0	3.5	-	-	-	-
4/3/2003	1,200	708	87.0	32.0	127.0	2.8	158.0	175.0	245.0	ND
10/1/2003	1,210	696	82.0	30.0	144.0	3.0	167.0	177.0	232.0	ND
1/4/2004	1,170	678	87.0	31.0	121.0	4.0	151.0	175.0	227.0	ND
4/4/2004	1,270	697	82.0	31.0	120.0	4.0	155.0	171.0	250.0	ND
7/1/2004	1,030	702	87.0	31.0	98.0	5.0	138.0	151.0	245.0	ND
10/1/2004	1,230	879	89.0	31.0	102.0	5.0	158.0	176.0	-	ND
2/1/2005	1,170	704	88.0	31.0	134.0	3.1	157.0	171.0	235.0	ND
4/1/2005	1,220	755	88.0	30.0	121.0	2.7	132.0	167.0	213.0	ND
7/1/2005	1,190	725	83.0	29.0	117.0	2.8	153.0	-	206.0	ND
4/1/2007	1,200	708	89.0	32.0	120.0	2.6	150.0	170.0	270.0	ND
4/10/2008	1,210	718	90.0	32.0	100.0	2.5	150.0	170.0	274.0	ND
4/16/2009	1,200	720	90.0	32.0	110.0	2.6	130.0	160.0	250.0	ND
4/14/2010	1,200	740	92.0	33.0	120.0	2.6	150.0	180.0	260.0	ND
4/22/2011	1,200	770	90.0	32.0	110.0	2.6	160.0	190.0	260.0	ND
4/20/2012	1,200	790	96.0	34.0	120.0	2.9	160.0	190.0	250.0	ND
5/2/2013	1,200	790	93.0	34.0	120.0	2.8	160.0	190.0	240.0	ND
6/11/2014	1,300	810	100.0	35.0	120.0	2.7	160.0	200.0	250.0	ND
3/13/2015	1,200	820	98.0	36.0	120.0	2.9	160.0	210.0	250.0	ND
4/28/2016	1,260	828	90.3	32.3	109.0	2.7	164.0	210.0	240.0	ND
3/30/2017	1,300	780	100.0	37.0	130.0	3.0	170.0	200.0	250.0	ND
Well 23063										
1/1/1990	1,030	540	96.0	26.6	94.8	-	141.0	130.0	200.0	0.2
6/1/1991	1,150	702	98.7	32.0	109.0	-	149.0	125.0	288.0	0.3
6/1/1993	1,130	705	72.0	28.4	107.0	-	140.0	139.0	262.0	0.2
3/1/1994	1,020	658	69.6	27.8	104.0	-	135.0	140.0	ND	0.2
6/29/1995	1,140	636	92.5	30.7	115.0	-	149.0	151.0	ND	3.2
6/27/1996	1,103	680	91.0	31.0	100.0	-	148.0	251.0	233.0	-
6/1/1997	1,082	708	85.0	29.0	110.0	ND	135.0	145.0	244.0	ND
12/12/1997	1,000	640	81.0	28.0	100.0	2.0	119.0	128.0	250.0	ND
3/22/1998	1,100	620	85.0	31.0	110.0	2.0	161.0	144.0	220.0	ND
6/4/1998	1,100	680	83.0	30.0	109.0	3.0	137.0	140.0	275.0	0.2
9/24/1998	1,160	662	81.0	28.0	90.0	3.0	144.0	90.0	256.0	ND
4/18/2001	1,100	612	83.0	29.0	106.0	3.0	131.0	146.0	238.0	0.8
9/19/2001	1,150	679	89.0	31.0	103.0	2.0	142.0	156.0	241.0	0.7
11/8/2001	1,130	658	87.0	30.0	104.0	2.0	148.0	169.0	262.0	0.8
2/14/2002	1,120	674	85.0	30.0	112.0	3.2	140.0	160.0	257.0	0.7
4/17/2002	1,120	682	89.0	32.0	106.0	2.7	142.0	167.0	205.0	0.6
7/22/2002	1,150	676	83.0	30.0	111.0	2.7	145.0	64.0	205.0	0.5
10/1/2002	1,220	711	87.0	31.0	110.0	2.7	149.0	175.0	203.0	ND
1/1/2003	1,210	713	91.0	33.0	106.0	2.7	138.0	165.0	197.0	0.5
5/5/2003	1,230	728	93.0	33.0	112.0	2.9	155.0	183.0	181.0	0.5
10/1/2003	1,190	741	93.0	33.0	123.0	3.0	188.0	212.0	179.0	ND
4/1/2004	1,270	701	87.0	32.0	103.0	4.0	163.0	186.0	220.0	ND
7/1/2004	1,270	701	220.0	32.0	103.0	4.0	163.0	186.0	220.0	ND
4/25/2012	1,200	790	100.0	37.0	120.0	2.8	160.0	220.0	220.0	ND
3/19/2015	1,200	780	93.0	34.0	100.0	2.6	150.0	220.0	210.0	0.5
2/14/2018	1,300	800	96.0	36.0	120.0	2.9	170.0	220.0	210.0	ND
12/14/2022	1,200	810	100.0	33.0	110.0	2.4	190.0	230.0	170.0	0.7
Well 23073										
6/1/1989	1,156	688	74.6	24.4	67.9	-	130.0	138.0	197.0	2.0
1/1/1990	1,120	630	86.4	32.3	101.0	-	156.0	166.0	210.0	ND
4/1/1990	1,160	720	98.8	34.8	107.0	-	152.0	146.0	218.0	0.3

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Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
1/1/1991	1,202	-	84.1	40.5	117.0	-	162.0	153.0	-	ND
6/1/1991	1,180	736	102.0	37.1	106.0	-	163.0	138.0	197.0	ND
3/1/1994	1,020	658	69.6	27.8	104.0	-	135.0	140.0	-	0.2
8/1/1994	1,110	684	81.4	32.2	178.0	-	144.0	157.0	-	ND
6/29/1995	1,170	679	95.3	35.2	113.0	-	145.0	116.0	-	3.1
6/1/1996	1,100	682	86.0	32.0	95.0	-	155.0	261.0	210.0	ND
2/1/1997	1,180	640	79.0	32.0	110.0	-	142.0	162.0	190.0	ND
6/1/1997	1,117	709	85.0	33.0	110.0	ND	150.0	164.0	223.0	ND
12/12/1997	1,100	700	82.0	33.0	110.0	3.0	141.0	157.0	220.0	ND
3/15/1998	1,100	710	83.0	33.0	100.0	3.0	182.0	158.0	150.0	ND
6/4/1998	1,200	720	85.0	34.0	119.0	4.0	159.0	154.0	281.0	ND
2/1/1999	1,020	613	70.0	30.0	85.0	4.0	130.0	85.0	179.0	1.8
5/11/2000	1,020	709	81.0	33.0	94.0	4.0	146.0	149.0	220.0	ND
8/17/2000	1,160	728	83.0	33.0	89.0	4.0	161.0	178.0	232.0	ND
2/22/2001	1,200	736	85.0	35.0	116.0	4.0	164.0	180.0	244.0	0.2
4/18/2001	1,200	606	85.0	34.0	112.0	4.0	154.0	177.0	232.0	ND
9/19/2001	1,250	761	90.0	37.0	115.0	4.0	166.0	188.0	232.0	ND
11/8/2001	1,290	737	91.0	37.0	118.0	3.0	181.0	207.0	256.0	ND
2/14/2002	1,260	781	89.0	36.0	123.0	4.6	170.0	189.0	255.0	0.3
4/17/2002	1,250	755	90.0	37.0	116.0	4.1	175.0	195.0	200.0	0.2
5/20/2002	1,290	750	92.0	38.0	110.0	4.0	157.0	194.0	180.0	0.1
7/22/2002	1,260	753	90.0	37.0	114.0	4.0	171.0	196.0	200.0	ND
1/1/2003	1,350	816	96.0	40.0	131.0	4.6	160.0	201.0	193.0	ND
4/4/2003	1,210	738	95.0	27.0	118.0	3.9	175.0	210.0	192.0	ND
10/1/2003	1,290	752	91.0	37.0	134.0	5.0	167.0	193.0	199.0	ND
1/4/2004	1,230	717	93.0	38.0	111.0	6.0	159.0	194.0	173.0	ND
4/4/2004	1,280	722	82.0	36.0	112.0	6.0	168.0	213.0	180.0	0.5
7/1/2004	1,080	739	88.0	37.0	92.0	7.0	156.0	198.0	190.0	ND
11/1/2004	1,230	563	91.0	38.0	124.0	4.8	172.0	215.0	175.0	ND
1/1/2005	1,240	687	96.0	39.0	124.0	4.0	172.0	215.0	190.0	ND
4/1/2007	1,240	770	98.0	40.0	100.0	3.8	160.0	220.0	240.0	ND
4/10/2008	1,370	908	100.0	42.0	110.0	3.7	180.0	240.0	234.0	ND
4/16/2009	1,300	800	97.0	39.0	120.0	3.7	140.0	200.0	220.0	2.0
8/11/2010	1,300	780	97.0	39.0	110.0	3.6	180.0	220.0	220.0	ND
4/22/2011	1,300	810	90.0	37.0	110.0	3.6	170.0	230.0	220.0	ND
4/20/2012	1,200	810	94.0	38.0	120.0	3.8	160.0	220.0	240.0	0.5
4/18/2013	1,200	780	88.0	37.0	100.0	3.9	160.0	200.0	210.0	ND
3/18/2015	1,400	890	100.0	42.0	130.0	3.7	170.0	240.0	240.0	ND
4/27/2016	1,350	912	95.0	40.7	120.0	3.8	180.0	267.0	212.0	0.1
3/17/2017	1,400	870	100.0	43.0	120.0	3.8	190.0	260.0	240.0	ND
3/29/2018	1,400	890	98.0	40.0	120.0	3.8	180.0	250.0	210.0	0.7
3/21/2019	1,400	870	98.0	42.0	120.0	3.9	190.0	260.0	220.0	ND
6/24/2020	1,300	870	110.0	46.0	110.0	3.9	200.0	270.0	220.0	0.5
7/15/2021	1,300	820	98.0	42.0	100.0	3.9	170.0	210.0	220.0	ND
7/20/2023	1,500	900	102.0	43.4	110.0	4.5	180.0	260.0	240.0	0.2
Well 23093										
6/1/1989	1,166	758	80.5	28.1	67.4	-	132.0	157.0	198.0	2.1
1/1/1990	1,230	748	97.4	39.7	106.0	-	178.0	179.0	226.0	ND
4/1/1990	1,190	733	99.6	37.5	112.0	-	159.0	156.0	207.0	0.6
6/1/1991	1,130	680	97.6	37.6	100.0	-	139.0	142.0	166.0	0.6
2/1/1994	1,180	731	83.3	35.5	104.0	-	142.0	159.0	ND	2.5
8/1/1994	1,150	725	84.3	35.2	102.0	-	147.0	164.0	ND	0.2
6/29/1995	932	636	75.4	29.1	86.6	-	102.0	140.0	ND	3.2
6/27/1996	1,117	710	92.0	36.0	93.0	-	180.0	297.0	206.0	-
2/1/1997	1,100	686	89.0	38.0	110.0	-	157.0	166.0	220.0	ND
3/1/1997	1,116	673	87.0	36.0	110.0	-	147.0	113.0	213.0	ND
6/1/1997	1,131	779	90.0	37.0	99.0	ND	151.0	177.0	199.0	ND
9/17/1998	1,160	727	83.0	36.0	90.0	3.0	160.0	181.0	232.0	ND
10/25/1999	1,200	325	88.0	39.0	117.0	4.0	130.0	180.0	268.0	ND
2/3/2000	1,100	739	84.0	37.0	100.0	4.0	130.0	180.0	281.0	ND
5/10/2000	1,030	717	80.0	35.0	96.0	4.0	168.0	183.0	229.0	0.5
2/13/2001	1,360	798	97.0	44.0	111.0	4.0	184.0	212.0	244.0	ND
4/18/2001	1,310	728	94.0	42.0	114.0	4.0	168.0	208.0	232.0	ND
9/19/2001	1,330	791	96.0	42.0	115.0	4.0	173.0	209.0	224.0	0.2
3/13/2002	1,320	778	102.0	44.0	123.0	4.4	196.0	229.0	242.0	0.2
4/17/2002	1,300	808	101.0	44.0	117.0	4.0	183.0	220.0	200.0	0.2
7/17/2002	1,390	778	96.0	42.0	114.0	3.7	180.0	214.0	209.0	ND

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-6
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
10/1/2002	1,360	763	97.0	41.0	126.0	4.0	180.0	207.0	214.0	ND
1/1/2003	1,290	749	96.0	40.0	116.0	3.7	172.0	200.0	200.0	ND
4/1/2003	1,210	783	99.0	42.0	129.0	3.9	176.0	229.0	191.0	0.3
10/1/2003	1,320	775	97.0	41.0	126.0	5.0	168.0	231.0	174.0	ND
1/4/2004	1,270	763	101.0	42.0	106.0	6.0	162.0	220.0	180.0	ND
4/4/2004	1,320	781	96.0	43.0	105.0	6.0	179.0	250.0	195.0	ND
7/1/2004	1,370	784	100.0	43.0	89.0	6.0	169.0	219.0	203.0	ND
10/1/2004	1,300	857	99.0	42.0	88.0	6.0	188.0	245.0	210.0	ND
1/1/2005	1,270	760	99.0	42.0	115.0	4.3	170.0	234.0	185.0	0.6
7/1/2005	1,120	724	89.0	36.0	91.0	3.5	133.0	ND	203.0	ND
11/1/2005	1,230	815	101.0	40.0	113.0	4.1	153.0	213.0	174.0	ND
4/1/2006	1,350	832	110.0	44.0	120.0	3.8	180.0	250.0	220.0	ND
4/1/2007	1,298	806	100.0	45.0	110.0	3.7	180.0	247.0	230.0	ND
4/10/2008	1,270	816	92.0	40.0	100.0	3.4	150.0	220.0	202.0	1.1
4/16/2009	1,300	840	100.0	43.0	120.0	3.8	150.0	220.0	230.0	ND
4/28/2010	1,200	700	83.0	36.0	99.0	3.4	140.0	200.0	190.0	0.6
7/27/2011	1,200	810	88.0	39.0	98.0	3.4	160.0	230.0	190.0	1.0
4/25/2012	1,200	830	95.0	42.0	100.0	4.0	170.0	240.0	190.0	ND
5/8/2013	1,300	800	88.0	37.0	120.0	3.6	170.0	220.0	190.0	ND
6/24/2014	1,300	820	95.0	41.0	120.0	3.5	170.0	240.0	190.0	ND
3/16/2015	1,300	810	86.0	38.0	120.0	3.9	170.0	240.0	200.0	ND
4/26/2016	1,400	916	99.0	43.5	122.0	4.2	192.0	275.0	223.0	0.0
3/17/2017	1,300	810	85.0	36.0	120.0	3.6	180.0	240.0	210.0	ND
3/29/2018	1,400	910	93.0	43.0	120.0	4.5	180.0	240.0	230.0	ND
3/21/2019	1,200	750	85.0	35.0	120.0	3.4	160.0	230.0	180.0	0.4
6/24/2020	1,200	730	87.0	37.0	97.0	3.5	160.0	210.0	190.0	0.4
7/15/2021	1,200	780	92.0	38.0	110.0	3.5	160.0	220.0	200.0	ND
8/18/2022	1,300	840	100.0	43.0	120.0	3.9	-	-	-	ND
Well 26018										
4/1/2010	1,400	840	100.0	42.0	110.0	3.6	170.0	230.0	240.0	ND
4/20/2011	1,400	880	100.0	41.0	100.0	3.4	180.0	250.0	220.0	ND
4/25/2012	1,300	910	100.0	44.0	120.0	3.8	180.0	-	230.0	ND
4/18/2013	1,300	880	98.0	42.0	120.0	4.2	180.0	240.0	220.0	ND
5/9/2016	1,370	868	104.0	44.2	122.0	3.9	189.0	216.0	262.0	ND
3/30/2017	1,400	850	110.0	45.0	140.0	4.4	190.0	210.0	280.0	ND
3/27/2018	1,400	910	97.0	42.0	130.0	4.3	200.0	230.0	260.0	ND
5/19/2023	1,500	920	104.0	42.1	120.0	4.6	190.0	270.0	260.0	ND
Well 2602										
4/15/2009	1,300	830	100.0	45.0	110.0	4.5	170.0	240.0	220.0	ND
4/13/2010	1,300	800	100.0	43.0	100.0	3.6	160.0	240.0	200.0	ND
4/13/2011	1,300	870	96.0	42.0	98.0	3.7	160.0	240.0	200.0	ND
4/25/2012	1,300	860	100.0	44.0	110.0	3.6	170.0	260.0	200.0	ND
4/18/2013	1,300	840	96.0	41.0	100.0	4.0	180.0	240.0	220.0	ND
4/23/2014	1,300	830	94.0	41.0	110.0	3.9	170.0	220.0	200.0	ND
3/18/2015	1,300	850	100.0	42.0	120.0	3.9	160.0	240.0	220.0	ND
4/21/2016	1,300	834	101.0	42.2	122.0	4.1	170.0	238.0	215.0	0.4
3/17/2017	1,300	800	100.0	43.0	110.0	3.6	170.0	240.0	210.0	ND
3/21/2018	1,300	860	100.0	43.0	120.0	4.0	180.0	250.0	220.0	ND
1/31/2019	1,300	840	100.0	44.0	120.0	3.9	170.0	250.0	210.0	ND
5/7/2020	1,400	910	110.0	46.0	110.0	3.7	180.0	270.0	220.0	ND
1/26/2021	1,300	850	110.0	46.0	110.0	3.6	170.0	260.0	220.0	0.4
8/3/2022	1,400	910	110.0	46.0	110.0	4.0	180.0	260.0	-	0.6
2/22/2023	1,300	860	100.0	40.0	100.0	4.4	170.0	230.0	200.0	0.4
Well 2603										
4/1/1989	1,270	788	104.0	36.5	126.0	-	173.0	161.0	215.0	0.6
6/1/1989	1,281	765	76.5	25.1	82.4	-	149.0	153.0	209.0	2.3
6/1/1991	1,400	836	111.0	41.1	130.0	-	195.0	155.0	215.0	0.0
2/1/1994	1,260	738	83.3	32.0	131.0	-	169.0	155.0	-	ND
8/1/1994	1,260	738	84.3	33.7	129.0	-	166.0	149.0	-	ND
6/29/1995	1,290	897	93.6	35.2	129.0	-	202.0	164.0	-	0.2
2/1/1997	1,200	720	84.0	36.0	130.0	-	150.0	152.0	240.0	ND
3/1/1997	1,143	708	83.0	35.0	130.0	-	152.0	137.0	240.0	ND
6/1/1997	1,227	831	94.0	34.0	120.0	ND	185.0	147.0	247.0	ND
12/19/1997	1,200	700	84.0	36.0	120.0	3.0	150.0	173.0	240.0	ND
3/15/1998	1,200	780	85.0	36.0	110.0	3.0	187.0	162.0	180.0	ND

NOTES:
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TABLE D-6
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
6/15/1998	1,190	734	83.0	35.0	110.0	3.0	160.0	167.0	275.0	ND
2/1/1999	1,160	663	76.0	32.0	102.0	3.0	150.0	150.0	214.0	ND
8/30/1999	1,120	727	76.0	33.0	99.0	3.0	156.0	230.0	281.0	ND
10/25/1999	1,130	660	78.0	33.0	120.0	3.0	110.0	160.0	262.0	ND
2/9/2000	1,030	592	79.0	35.0	95.9	3.0	120.0	160.0	244.0	ND
5/11/2000	1,010	699	76.0	33.0	96.0	3.0	129.0	127.0	229.0	ND
8/24/2000	1,140	720	77.0	33.0	87.0	3.0	-	157.0	232.0	ND
12/2/2002	1,120	617	73.0	32.0	102.0	3.6	132.0	164.0	174.0	0.1
1/1/2003	1,150	689	76.0	34.0	113.0	3.6	135.0	165.0	185.0	ND
4/4/2003	1,190	717	82.0	37.0	122.0	4.0	164.0	182.0	209.0	ND
5/5/2003	1,190	-	-	-	-	-	156.0	182.0	-	-
10/1/2003	1,250	737	81.0	37.0	130.0	5.0	163.0	201.0	192.0	ND
1/4/2004	1,240	694	86.0	39.0	107.0	6.0	153.0	182.0	185.0	ND
4/4/2004	1,320	750	84.0	40.0	108.0	6.0	170.0	210.0	220.0	ND
7/1/2004	1,100	761	92.0	41.0	88.0	7.0	172.0	204.0	205.0	ND
10/1/2004	1,280	893	93.0	41.0	88.0	6.0	179.0	222.0	-	ND
2/1/2005	1,270	839	99.0	44.0	121.0	5.2	180.0	215.0	198.0	ND
4/1/2005	1,300	880	98.0	41.0	109.0	3.8	158.0	216.0	183.0	ND
7/1/2005	1,380	870	101.0	43.0	109.0	4.0	430.0	540.0	176.0	ND
11/1/2005	1,310	865	104.0	43.0	115.0	3.8	164.0	221.0	181.0	ND
4/1/2006	1,220	810	100.0	43.0	110.0	3.8	170.0	240.0	206.0	ND
4/1/2007	1,400	856	99.0	44.0	110.0	3.6	170.0	250.0	210.0	ND
4/1/2008	1,290	888	91.0	39.0	100.0	3.4	160.0	230.0	207.0	0.6
Well 2604										
9/11/2020	2,100	1,200	130.0	50.0	220.0	2.0	560.0	200.0	360.0	ND
3/10/2021	1,900	1,200	120.0	47.0	210.0	1.7	360.0	180.0	340.0	ND
6/11/2021	-	-	-	-	-	-	330.0	-	-	-
3/10/2022	1,700	990	100.0	42.0	170.0	1.6	280.0	200.0	320.0	ND
6/9/2022	1,600	960	-	-	-	-	-	-	-	-
9/26/2023	1,600	970	94.0	38.0	170.0	1.5	280.0	180.0	260.0	ND
Well 26071										
8/1/1956	1,060	882	78.0	30.0	112.0	-	150.0	82.0	326.0	-
1/1/1960	820	500	55.2	14.7	85.0	-	76.0	98.0	224.0	-
10/1/1960	1,300	793	74.5	20.5	126.0	4.3	182.0	116.0	320.0	-
5/1/1961	1,390	840	100.0	29.2	170.0	3.3	170.0	135.0	362.0	-
5/1/1962	1,220	744	70.4	39.0	142.0	2.4	184.0	86.0	312.3	-
1/1/1963	1,300	740	65.6	26.4	162.0	2.4	166.0	153.0	259.0	0.2
7/1/1963	1,100	671	64.0	25.4	118.0	2.7	148.0	97.0	280.6	ND
1/1/1964	1,020	622	70.4	33.2	117.0	2.7	172.0	98.0	302.6	0.7
7/1/1964	1,400	854	83.2	27.3	134.0	1.4	164.0	98.0	322.1	-
4/1/1965	1,490	909	97.6	23.4	152.0	4.7	196.0	110.0	346.5	0.2
1/1/1966	-	832	102.0	28.0	166.0	3.1	194.0	88.0	414.8	1.5
6/1/1966	-	768	86.4	26.3	150.0	3.1	184.0	110.0	331.8	1.6
1/1/1967	-	768	72.0	29.3	128.0	3.1	174.0	72.0	324.5	1.6
8/1/1967	-	608	57.6	24.4	116.0	2.4	132.0	70.0	251.3	2.3
2/1/1968	-	572	67.2	17.6	105.0	2.4	118.0	94.0	251.0	-
9/1/1968	-	636	74.0	19.0	112.0	3.0	144.0	96.0	268.0	0.1
4/1/1969	-	820	72.0	33.0	138.0	2.8	180.0	140.0	285.0	0.2
11/1/1969	-	604	66.0	24.0	116.0	2.8	140.0	110.0	259.0	0.4
5/1/1970	-	640	65.0	26.0	115.0	2.4	142.0	120.0	183.0	0.7
9/1/1971	1,075	656	77.0	24.0	120.0	2.8	144.0	125.0	273.0	0.3
5/1/1972	1,000	610	46.0	24.0	117.0	2.4	140.0	130.0	141.0	-
10/1/1972	1,110	677	88.0	26.0	105.0	3.6	144.0	126.0	283.0	0.8
10/1/1973	1,120	683	75.0	23.0	118.0	2.7	132.0	130.0	200.0	0.6
6/1/1974	1,210	712	72.0	19.0	150.0	3.1	208.0	112.0	195.0	0.0
1/1/1975	850	519	61.0	21.0	93.0	2.4	102.0	95.0	212.0	2.3
2/1/1976	1,200	732	91.2	20.5	126.0	3.2	176.0	130.0	244.0	2.6
9/1/1976	1,200	732	48.0	29.0	180.0	2.4	192.0	123.0	336.7	4.2
3/1/1977	1,400	854	94.0	33.0	158.0	2.8	216.0	140.0	342.0	2.8
1/1/1978	1,000	610	66.0	23.0	100.0	2.7	128.0	123.0	205.0	4.4
10/1/1978	1,300	793	82.0	31.0	134.0	2.7	160.0	157.0	258.6	ND
4/1/1979	1,200	732	84.8	28.3	144.0	3.1	164.0	116.0	312.3	ND
1/1/1980	1,450	885	93.0	30.0	163.0	3.0	196.0	200.0	273.0	ND
10/1/1980	1,050	591	70.4	21.7	104.0	3.7	140.0	125.0	219.6	2.0
5/1/1981	1,000	645	72.4	21.7	105.0	3.5	128.0	123.0	209.8	ND
5/1/1982	1,330	811	100.8	35.9	176.0	1.6	269.0	198.0	263.5	ND

NOTES:
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TABLE D-6
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
3/1/1983	890	669	77.2	23.7	95.0	3.4	132.0	136.0	209.8	0.7
12/1/1983	1,000	610	70.4	23.7	123.0	2.6	136.0	150.0	224.0	0.5
5/1/1984	1,100	671	77.2	24.6	116.0	2.7	133.0	155.0	244.0	0.2
9/1/1984	1,300	650	6.6	29.0	120.0	2.6	200.0	170.0	250.0	2.7
11/1/1984	1,100	671	81.6	23.4	124.0	2.7	149.0	175.0	249.0	1.2
5/1/1986	1,592	994	104.7	39.7	167.3	4.4	232.0	167.0	301.8	ND
6/1/1989	1,137	826	79.1	28.5	85.5	-	157.0	158.0	246.0	2.9
1/1/1990	1,290	772	96.3	38.6	116.0	-	184.0	179.0	252.0	0.2
4/1/1990	1,320	817	109.0	42.1	128.0	-	177.0	167.0	249.0	1.2
1/1/1991	401	-	87.3	44.4	103.1	-	205.0	179.0	ND	0.2
3/1/1993	1,500	824	92.6	33.1	136.0	-	194.0	154.0	277.0	0.4
3/1/1994	1,370	827	103.0	36.4	135.0	-	163.0	145.0	ND	0.2
8/1/1994	1,270	762	91.1	35.5	129.0	-	162.0	172.0	ND	1.3
6/29/1995	1,260	771	100.0	35.8	127.0	-	197.0	178.0	ND	0.6
6/24/1996	1,300	751	96.0	36.0	120.0	-	162.0	174.0	247.0	0.2
2/1/1997	1,300	830	100.0	41.0	150.0	-	186.0	161.0	186.0	ND
6/1/1997	1,323	831	94.0	36.0	140.0	ND	158.0	149.0	271.0	2.0
12/3/1997	1,200	670	91.0	36.0	120.0	3.0	150.0	169.0	220.0	ND
12/19/1997	1,200	710	87.0	35.0	120.0	2.0	152.0	182.0	220.0	0.3
3/15/1998	1,200	810	89.0	36.0	120.0	3.0	201.0	168.0	240.0	ND
6/16/1998	1,390	830	91.0	36.0	140.0	2.0	185.0	150.0	366.0	ND
2/1/1999	1,130	663	75.0	31.0	106.0	3.0	150.0	150.0	238.0	1.1
5/5/1999	1,170	711	75.0	32.0	85.0	4.0	ND	180.0	268.0	ND
8/18/1999	1,040	692	74.0	30.0	94.0	2.0	100.0	400.0	207.0	ND
10/28/1999	1,210	757	86.0	35.0	120.0	3.0	154.0	100.0	295.0	0.7
8/24/2000	1,290	766	83.0	33.0	89.0	2.0	184.0	150.0	323.0	ND
2/21/2001	1,140	707	85.0	35.0	107.0	2.0	152.0	179.0	232.0	1.1
4/25/2001	1,190	718	88.0	37.0	112.0	3.0	153.0	193.0	218.0	1.1
9/20/2001	1,200	729	89.0	38.0	106.0	3.0	158.0	192.0	201.0	1.0
11/8/2001	1,210	693	90.0	38.0	106.0	3.0	169.0	209.0	214.0	1.2
2/11/2002	1,190	726	94.0	39.0	106.0	2.7	147.0	184.0	218.0	1.3
4/4/2002	1,190	724	91.0	38.0	107.0	2.9	153.0	204.0	173.0	1.5
7/11/2002	1,200	755	88.0	37.0	107.0	3.1	162.0	201.0	180.0	1.4
10/1/2002	1,250	722	91.0	38.0	99.0	2.6	150.0	197.0	177.0	1.4
1/1/2003	1,260	781	95.0	39.0	119.0	3.2	144.0	204.0	169.0	1.0
4/4/2003	1,310	776	93.0	38.0	125.0	3.0	178.0	217.0	185.0	0.9
4/1/2004	1,660	890	112.0	47.0	143.0	4.0	208.0	162.0	370.0	ND
7/1/2004	1,460	785	98.0	38.0	109.0	4.0	186.0	191.0	275.0	0.8
5/1/2006	1,380	870	100.0	41.0	110.0	2.3	180.0	240.0	210.0	0.7
4/1/2007	1,300	812	99.0	41.0	110.0	2.5	160.0	230.0	220.0	1.2
4/15/2009	1,300	830	100.0	43.0	110.0	2.9	170.0	260.0	190.0	1.1
4/22/2010	1,300	790	100.0	42.0	110.0	2.7	170.0	230.0	210.0	1.0
4/20/2011	1,400	860	97.0	42.0	110.0	3.2	180.0	250.0	210.0	0.5
4/20/2012	1,200	840	93.0	40.0	110.0	3.3	160.0	220.0	200.0	1.2
4/14/2013	1,300	830	88.0	40.0	100.0	3.6	160.0	220.0	230.0	2.7
4/28/2014	1,400	860	93.0	42.0	110.0	3.1	170.0	220.0	230.0	0.8
8/13/2015	1,300	910	100.0	46.0	120.0	3.3	180.0	260.0	220.0	0.7
4/21/2016	1,340	886	107.0	46.8	119.0	3.5	172.0	270.0	204.0	0.7
3/9/2017	1,400	920	100.0	46.0	120.0	3.3	180.0	260.0	230.0	0.5
3/15/2018	1,400	930	110.0	47.0	130.0	3.9	180.0	260.0	220.0	1.0
3/1/2019	1,300	850	98.0	45.0	130.0	3.6	170.0	240.0	230.0	1.6
6/5/2020	1,300	810	92.0	41.0	100.0	3.3	170.0	230.0	220.0	0.8
3/11/2021	1,200	700	90.0	40.0	100.0	3.2	150.0	200.0	210.0	1.7
7/1/2022	1,200	790	94.0	41.0	100.0	3.4	180.0	240.0	-	0.7
10/5/2023	1,200	750	88.0	39.0	100.0	3.3	160.0	220.0	170.0	1.7
Well 26072										
3/10/1999	1,280	765	91.0	34.0	127.0	2.0	190.0	160.0	272.0	ND
6/9/1999	1,080	706	76.0	31.0	88.0	2.2	163.0	118.0	220.0	ND
8/18/1999	1,080	690	76.0	32.0	93.0	3.0	160.0	191.0	244.0	ND
10/28/1999	1,070	660	76.0	32.0	100.0	3.0	131.0	120.0	232.0	0.9
5/10/2000	1,010	702	79.0	34.0	94.0	3.0	177.0	164.0	254.0	ND
8/21/2000	1,170	732	84.0	36.0	89.0	3.0	155.0	188.0	201.0	1.1
2/21/2001	1,230	753	89.0	39.0	113.0	2.0	170.0	198.0	220.0	0.6
4/25/2001	1,230	726	89.0	39.0	115.0	4.0	160.0	191.0	243.0	0.7
9/20/2001	1,210	735	89.0	39.0	107.0	4.0	153.0	185.0	217.0	1.2
11/7/2001	1,240	725	89.0	39.0	117.0	3.0	168.0	205.0	220.0	1.3
2/11/2002	1,250	765	97.0	43.0	109.0	3.4	155.0	198.0	234.0	1.1

NOTES:
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(2) "ND" indicates not detected above minimum testing threshold

TABLE D-6
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
4/4/2002	1,290	790	98.0	44.0	109.0	3.4	158.0	208.0	200.0	0.9
7/11/2002	1,320	809	96.0	43.0	117.0	3.7	182.0	217.0	200.0	ND
10/1/2002	1,380	787	99.0	43.0	113.0	3.7	170.0	216.0	203.0	0.6
1/1/2003	1,370	810	101.0	44.0	134.0	4.0	155.0	194.0	217.0	ND
4/4/2003	1,440	789	93.0	40.0	125.0	3.6	177.0	205.0	216.0	0.5
10/1/2003	1,370	820	91.0	40.0	130.0	4.0	175.0	235.0	180.0	1.0
1/1/2004	1,350	747	97.0	42.0	114.0	6.0	168.0	226.0	184.0	0.5
4/1/2004	1,400	766	92.0	42.0	112.0	6.0	162.0	228.0	198.0	0.5
7/1/2004	1,410	784	98.0	43.0	92.0	6.0	171.0	231.0	200.0	0.9
11/1/2004	1,290	831	100.0	43.0	134.0	4.2	176.0	224.0	203.0	ND
1/1/2005	1,310	804	102.0	44.0	125.0	3.7	184.0	241.0	200.0	0.6
4/1/2005	1,100	690	78.0	34.0	84.0	3.2	128.0	177.0	162.0	0.6
7/1/2005	1,160	716	84.0	35.0	96.0	3.0	136.0	ND	166.0	ND
11/1/2005	1,180	785	92.5	40.4	97.1	3.8	138.0	202.0	174.0	1.3
4/1/2006	1,280	786	98.0	43.0	110.0	3.3	160.0	220.0	233.0	1.6
4/1/2007	1,400	784	98.0	43.0	110.0	3.4	165.0	230.0	230.0	1.1
4/9/2008	1,230	840	88.0	40.0	98.0	3.4	160.0	250.0	169.0	1.6
11/24/2009	-	-	-	-	-	-	-	-	-	ND
4/13/2010	1,300	820	96.0	42.0	120.0	3.5	170.0	240.0	220.0	1.0
7/27/2011	1,200	800	89.0	39.0	110.0	3.2	150.0	200.0	220.0	1.1
4/19/2012	1,200	860	97.0	42.0	120.0	3.8	180.0	210.0	160.0	ND
4/18/2013	1,500	960	120.0	45.0	150.0	4.0	200.0	210.0	370.0	ND
3/16/2015	1,300	860	100.0	43.0	110.0	2.4	170.0	270.0	220.0	0.5
5/12/2016	1,400	870	100.0	50.0	120.0	3.2	180.0	240.0	260.0	ND
3/9/2017	1,400	980	110.0	47.0	120.0	3.3	180.0	260.0	250.0	ND
3/15/2018	1,300	890	98.0	45.0	120.0	3.8	170.0	270.0	210.0	0.6
1/30/2019	1,400	860	95.0	46.0	130.0	3.6	180.0	240.0	260.0	ND
4/16/2020	1,300	810	100.0	43.0	120.0	3.1	180.0	250.0	220.0	ND
2/11/2021	1,100	700	87.0	36.0	98.0	2.8	150.0	200.0	210.0	ND
7/1/2022	1,100	710	81.0	35.0	95.0	2.9	150.0	220.0	-	0.1
10/5/2023	370	780	94.0	39.0	100.0	3.1	160.0	240.0	120.0	3.4
Well 26073										
3/14/2018	1,400	870	100.0	47.0	120.0	4.6	180.0	260.0	200.0	0.9
2/28/2019	1,300	830	100.0	46.0	120.0	4.2	180.0	260.0	200.0	0.3
4/9/2020	1,200	750	92.0	42.0	96.0	3.8	170.0	240.0	180.0	0.7
3/11/2021	1,200	750	97.0	43.0	100.0	4.2	160.0	230.0	190.0	ND
3/31/2022	1,100	650	79.0	36.0	89.0	3.4	140.0	200.0	160.0	0.6
7/20/2023	1,200	760	85.0	37.7	94.0	3.9	150.0	230.0	180.0	1.0
Well 2673										
5/1/1956	920	651	59.0	22.0	100.0	-	104.0	94.0	213.0	-
5/1/1959	-	745	52.8	16.5	60.3	-	84.0	41.0	207.4	-
1/1/1960	-	840	51.2	17.6	95.0	-	98.0	92.0	210.0	-
10/1/1960	870	566	62.0	23.0	80.0	4.2	110.0	104.0	234.0	-
5/1/1961	1,180	710	72.0	34.0	114.0	3.3	104.0	150.0	227.0	-
5/1/1962	797	518	63.2	23.4	75.0	2.0	100.0	96.0	214.7	-
1/1/1963	1,195	730	64.0	24.9	157.0	3.1	162.0	183.0	220.0	ND
7/1/1963	574	610	57.6	19.5	85.0	2.7	102.0	100.0	244.0	0.3
1/1/1964	760	494	59.2	19.3	82.0	3.3	100.0	85.0	253.7	0.5
7/1/1964	980	637	64.0	21.5	94.0	1.4	100.0	95.0	241.6	-
4/1/1965	1,230	800	73.3	22.5	106.0	4.5	120.0	110.0	248.9	0.3
1/1/1966	-	448	-	-	86.0	2.5	82.0	75.0	190.3	2.2
6/1/1966	-	540	60.8	21.0	81.0	2.5	102.0	95.0	222.0	2.1
1/1/1967	-	544	60.8	19.5	88.0	2.9	106.0	69.0	229.4	1.6
8/1/1967	-	504	54.4	20.0	79.0	2.1	96.0	58.0	214.7	1.8
2/1/1968	-	456	60.8	17.6	86.0	2.7	94.0	78.0	222.0	ND
9/1/1968	-	600	67.0	18.0	90.0	3.0	110.0	96.0	232.0	ND
4/1/1969	-	428	46.0	18.0	73.0	-	76.0	90.0	183.0	0.7
11/1/1969	-	476	59.0	18.0	88.0	2.7	98.0	110.0	198.0	0.2
5/1/1970	-	416	54.0	18.0	79.0	2.6	92.0	90.0	151.0	0.7
12/1/1970	780	507	64.0	16.0	89.0	2.7	100.0	90.0	222.0	2.3
5/1/1972	990	644	77.0	24.0	86.0	2.8	116.0	135.0	207.0	ND
10/1/1972	965	627	77.0	27.0	94.0	2.9	104.0	145.0	239.0	1.2
10/1/1973	960	624	72.0	19.0	105.0	2.8	112.0	140.0	195.0	0.9
6/1/1974	950	548	68.0	19.0	101.0	3.1	138.0	102.0	207.0	0.4
1/1/1975	840	546	58.0	22.0	87.0	2.7	98.0	95.0	217.0	2.2
2/1/1976	820	533	68.8	20.5	76.0	3.0	106.0	88.0	214.7	2.2

NOTES:
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Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
9/1/1976	900	585	48.0	45.0	98.0	2.3	116.0	112.0	258.6	3.0
3/1/1977	900	585	70.0	23.0	76.0	2.8	123.0	113.0	195.0	2.6
1/1/1978	950	618	64.0	24.0	100.0	2.7	124.0	108.0	200.0	4.3
10/1/1978	1,050	683	74.0	20.0	80.0	3.0	113.0	128.0	205.0	ND
4/1/1979	950	618	65.6	19.5	98.0	3.1	109.0	118.0	190.3	ND
1/1/1980	1,000	650	67.0	23.0	99.0	3.1	128.0	111.0	187.0	ND
10/1/1980	900	546	67.2	20.5	86.0	3.4	108.0	86.0	205.0	2.3
5/1/1981	810	585	57.2	14.4	83.0	3.4	92.0	84.0	180.6	0.7
11/1/1981	800	451	57.2	16.3	85.0	2.0	92.0	110.0	185.4	0.5
5/1/1982	930	605	68.8	21.5	97.0	1.6	115.0	96.0	205.0	ND
3/1/1983	900	663	78.8	23.7	95.0	3.4	132.0	135.0	209.8	0.7
9/1/1984	1,000	530	51.0	23.0	80.0	2.9	110.0	110.0	200.0	1.0
11/1/1984	850	553	67.2	28.3	73.0	2.9	111.0	137.0	190.0	1.7
9/1/1985	1,007	593	66.0	26.0	64.0	5.8	124.0	139.0	180.6	1.4
5/1/1986	1,051	623	72.6	26.5	79.5	3.5	131.0	124.0	153.6	2.0
1/1/1989	1,080	572	91.2	34.2	80.2	-	151.0	178.0	174.0	0.3
6/1/1989	1,073	688	72.1	23.9	59.6	-	120.0	140.0	184.0	3.6
4/1/1990	1,130	718	111.0	42.1	91.0	-	148.0	167.0	175.0	2.1
6/1/1991	1,190	718	113.0	40.3	93.8	-	173.0	180.0	160.0	1.7
3/1/1993	1,370	708	86.9	32.8	93.3	-	147.0	93.3	200.0	1.1
3/1/1994	1,210	783	100.0	37.1	100.0	-	145.0	167.0	-	0.5
8/1/1994	1,160	741	87.5	35.5	96.1	-	141.0	184.0	-	1.0
6/1/1995	1,200	788	99.4	37.5	101.0	-	173.0	200.0	-	0.7
6/27/1996	1,129	739	91.0	37.0	90.0	-	188.0	312.0	206.0	-
2/1/1997	1,100	690	82.0	35.0	140.0	-	127.0	131.0	180.0	ND
3/1/1997	1,109	695	91.0	39.0	93.0	-	137.0	191.0	166.0	2.2
6/1/1997	1,096	749	89.0	36.0	90.0	ND	138.0	178.0	187.0	2.0
12/29/1997	1,100	690	84.0	36.0	83.0	4.0	140.0	181.0	160.0	ND
5/5/1999	1,050	648	78.0	32.0	111.0	3.0	171.0	-	207.0	ND
8/18/1999	1,040	696	78.0	33.0	84.0	4.0	120.0	390.0	146.0	ND
10/28/1999	1,070	663	78.0	34.0	90.0	4.0	132.0	120.0	195.0	6.0
2/9/2000	1,010	559	83.0	36.0	82.0	4.0	140.0	190.0	220.0	4.0
5/11/2000	972	688	80.0	34.0	79.0	4.0	144.0	167.0	190.0	4.0
2/21/2001	1,200	753	92.0	40.0	100.0	3.0	164.0	212.0	195.0	ND
4/25/2001	1,210	736	91.0	40.0	103.0	5.0	159.0	217.0	183.0	1.0
9/20/2001	1,200	741	93.0	41.0	98.0	4.0	153.0	202.0	183.0	1.7
11/7/2001	1,220	750	92.0	41.0	106.0	4.0	170.0	228.0	189.0	1.8
2/11/2002	1,230	769	99.0	43.0	101.0	4.2	173.0	218.0	195.0	1.8
4/10/2002	1,260	793	101.0	45.0	102.0	4.5	170.0	229.0	160.0	1.9
7/17/2002	1,350	784	98.0	43.0	103.0	4.3	183.0	239.0	159.0	1.1
10/1/2002	1,370	788	102.0	45.0	104.0	4.3	175.0	241.0	167.0	0.8
1/1/2003	1,330	825	108.0	45.0	121.0	5.4	180.0	231.0	168.0	0.5
4/4/2003	1,260	721	90.0	40.0	102.0	4.3	170.0	228.0	153.0	2.2
10/1/2003	1,340	791	94.0	41.0	121.0	6.0	180.0	268.0	144.0	0.7
1/4/2004	1,390	800	99.0	46.0	105.0	7.0	173.0	264.0	136.0	0.9
4/4/2004	1,270	739	86.0	42.0	98.0	6.0	160.0	252.0	160.0	1.2
7/1/2004	1,390	764	97.0	45.0	87.0	7.0	176.0	262.0	163.0	0.8
10/1/2004	1,290	943	95.0	44.0	84.0	7.0	178.0	267.0	-	0.8
1/1/2005	1,030	610	76.0	35.0	93.0	3.8	136.0	194.0	155.0	1.6
4/1/2005	1,060	630	77.0	34.0	82.0	3.2	125.0	174.0	139.0	0.6
7/1/2005	1,120	750	81.0	35.0	84.0	3.4	129.0	-	129.0	ND
11/1/2005	1,170	790	94.7	41.2	97.9	3.7	138.0	199.0	156.0	1.7
4/1/2006	1,140	704	91.0	39.0	98.0	4.5	150.0	220.0	180.0	1.7
4/1/2007	1,200	716	97.0	44.0	97.0	3.7	160.0	240.0	190.0	1.0
4/8/2008	1,270	900	98.0	45.0	97.0	3.8	180.0	260.0	170.0	3.2
4/16/2009	1,200	780	94.0	42.0	100.0	3.7	130.0	230.0	180.0	5.0
4/13/2010	1,300	770	93.0	42.0	100.0	3.8	160.0	240.0	180.0	2.0
4/13/2011	1,200	780	83.0	38.0	93.0	3.5	150.0	220.0	170.0	0.9
4/19/2012	1,300	790	92.0	42.0	94.0	3.8	160.0	240.0	260.0	1.4
4/17/2013	1,200	780	85.0	40.0	94.0	4.3	160.0	230.0	190.0	0.5
4/23/2014	1,200	770	84.0	40.0	93.0	3.7	150.0	220.0	170.0	0.6
8/24/2015	1,300	860	90.0	43.0	97.0	3.6	170.0	240.0	200.0	0.5
5/5/2016	1,320	880	101.0	47.8	109.0	4.1	172.0	267.0	199.0	0.3
3/9/2017	1,300	870	100.0	46.0	110.0	4.1	170.0	260.0	210.0	ND
Well 330923										
6/9/1999	1,150	700	75.0	27.0	106.0	2.2	163.0	155.0	317.0	ND
8/18/1999	1,170	722	79.0	28.0	114.0	3.0	330.0	161.0	342.0	ND

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-6
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
10/25/1999	1,170	723	78.0	28.0	140.0	3.0	120.0	140.0	293.0	ND
2/3/2000	1,120	712	83.0	30.0	117.0	3.0	120.0	157.0	293.0	ND
2/22/2001	1,240	758	85.0	31.0	136.0	3.0	167.0	152.0	305.0	ND
4/25/2001	1,220	735	85.0	31.0	135.0	3.0	162.0	154.0	293.0	ND
9/26/2001	1,240	682	81.0	29.0	132.0	3.0	162.0	144.0	281.0	ND
10/25/2001	1,330	746	87.0	32.0	134.0	3.0	166.0	156.0	293.0	ND
2/13/2002	1,190	720	83.0	29.0	140.0	3.5	150.0	155.0	281.0	ND
4/18/2002	1,210	691	82.0	29.0	127.0	2.7	145.0	142.0	231.0	ND
7/11/2002	1,230	738	81.0	29.0	134.0	3.1	167.0	151.0	240.0	ND
10/1/2002	1,270	716	85.0	30.0	137.0	2.9	150.0	162.0	221.0	ND
1/1/2003	1,340	826	100.0	35.0	141.0	2.6	156.0	185.0	252.0	0.1
4/4/2003	1,350	733	85.0	30.0	129.0	2.6	162.0	171.0	235.0	ND
10/1/2003	887	800	84.0	30.0	141.0	3.0	160.0	173.0	224.0	ND
2/1/2004	1,250	698	83.0	29.0	120.0	4.0	154.0	172.0	233.0	ND
4/1/2004	1,240	706	78.0	28.0	121.0	4.0	163.0	170.0	220.0	ND
7/1/2004	1,040	729	84.0	30.0	99.0	5.0	158.0	169.0	240.0	ND
10/1/2004	1,180	857	86.0	30.0	97.0	5.0	159.0	172.0	235.0	ND
2/1/2005	1,160	685	87.0	31.0	125.0	3.7	159.0	168.0	210.0	ND
4/1/2005	1,230	760	91.0	30.0	122.0	2.6	149.0	148.0	213.0	ND
7/5/2005	1,170	755	83.0	29.0	115.0	2.6	135.0	-	210.0	ND
11/1/2005	1,230	735	92.8	29.5	123.0	3.0	141.0	165.0	332.0	ND
4/1/2006	1,190	720	89.0	31.0	120.0	2.7	160.0	170.0	233.0	ND
4/1/2007	1,010	718	87.0	30.0	120.0	2.6	160.0	170.0	250.0	ND
4/1/2008	1,250	754	91.0	32.0	110.0	2.5	160.0	180.0	184.0	ND
4/15/2009	1,200	760	92.0	33.0	120.0	2.7	160.0	180.0	250.0	ND
4/15/2010	1,200	760	98.0	34.0	120.0	2.6	160.0	180.0	240.0	ND
4/13/2011	1,300	760	88.0	30.0	110.0	2.6	160.0	180.0	240.0	ND
4/16/2012	1,200	760	98.0	34.0	120.0	2.9	170.0	190.0	230.0	ND
4/10/2013	1,300	780	95.0	33.0	130.0	3.3	160.0	190.0	240.0	ND
5/12/2016	1,260	752	92.4	32.1	126.0	2.8	176.0	182.0	244.0	ND
3/23/2017	1,300	790	96.0	34.0	120.0	2.9	170.0	190.0	250.0	ND
3/28/2018	1,300	800	95.0	33.0	120.0	3.0	170.0	200.0	240.0	ND
5/3/2023	1,300	800	96.3	32.6	120.0	3.4	860.0	990.0	250.0	ND
Well 330924										
3/22/2018	1,200	770	94.0	33.0	120.0	2.9	160.0	200.0	220.0	ND
3/15/2019	1,200	750	92.0	31.0	120.0	2.2	170.0	200.0	220.0	ND
4/17/2020	1,200	750	90.0	31.0	110.0	2.0	160.0	190.0	220.0	ND
2/26/2021	1,200	740	96.0	32.0	110.0	2.2	160.0	210.0	220.0	ND
7/21/2022	1,200	790	97.0	33.0	110.0	2.2	170.0	210.0	190.0	ND
Well 330925										
6/9/1999	1,070	668	69.0	23.0	106.0	1.7	163.0	144.0	305.0	ND
8/18/1999	1,090	657	72.0	25.0	115.0	2.0	180.0	153.0	317.0	ND
10/25/1999	1,150	716	79.0	27.0	140.0	2.0	120.0	140.0	305.0	ND
2/9/2000	956	522	67.0	23.0	117.0	2.0	90.0	120.0	268.0	ND
5/10/2000	1,040	686	77.0	27.0	116.0	2.0	181.0	141.0	307.0	ND
8/21/2000	1,180	722	80.0	28.0	105.0	2.0	155.0	143.0	232.0	ND
2/22/2001	1,100	706	73.0	25.0	125.0	2.0	149.0	164.0	268.0	ND
4/16/2001	1,170	701	81.0	29.0	128.0	2.0	154.0	149.0	282.0	ND
9/26/2001	1,180	671	80.0	28.0	126.0	2.0	149.0	142.0	271.0	ND
10/31/2001	1,180	678	81.0	28.0	132.0	2.0	161.0	156.0	281.0	ND
2/13/2002	1,170	685	80.0	28.0	134.0	2.8	143.0	144.0	279.0	ND
4/4/2002	1,200	711	87.0	31.0	127.0	2.3	150.0	204.0	235.0	ND
7/11/2002	1,180	730	83.0	29.0	130.0	2.5	158.0	151.0	230.0	ND
10/1/2002	1,180	649	78.0	27.0	115.0	2.1	135.0	138.0	217.0	ND
1/1/2003	1,210	740	87.0	30.0	129.0	2.2	145.0	154.0	225.0	ND
4/4/2003	1,200	681	79.0	27.0	128.0	2.5	150.0	152.0	215.0	ND
10/1/2003	1,160	647	80.0	27.0	136.0	3.0	152.0	155.0	216.0	ND
4/1/2004	1,140	604	66.0	24.0	117.0	3.0	147.0	133.0	215.0	ND
8/1/2004	1,180	657	68.0	24.0	99.0	4.0	140.0	114.0	245.0	ND
10/1/2004	1,170	712	85.0	29.0	97.0	5.0	160.0	172.0	-	ND
2/1/2005	1,070	661	84.0	29.0	125.0	3.3	154.0	148.0	185.0	ND
7/1/2005	1,050	655	72.0	23.0	118.0	2.0	127.0	-	202.0	ND
11/1/2005	1,080	665	75.9	23.2	121.0	2.0	135.0	125.0	227.0	ND
5/1/2006	1,110	650	71.0	24.0	120.0	1.9	140.0	130.0	217.0	ND
4/1/2007	950	632	72.0	25.0	120.0	1.9	140.0	130.0	260.0	ND
4/3/2008	1,150	672	73.0	25.0	120.0	1.8	150.0	130.0	250.0	ND

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
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TABLE D-6
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
4/14/2009	1,100	670	76.0	26.0	120.0	2.1	150.0	140.0	250.0	ND
4/22/2010	1,100	660	71.0	24.0	120.0	1.8	140.0	120.0	250.0	ND
4/20/2011	1,200	720	83.0	29.0	110.0	2.1	150.0	170.0	240.0	ND
4/30/2012	1,100	720	83.0	29.0	120.0	2.0	150.0	160.0	230.0	ND
4/17/2013	1,200	750	82.0	29.0	110.0	2.4	160.0	170.0	230.0	ND
4/24/2014	1,300	770	88.0	31.0	120.0	2.3	160.0	180.0	220.0	ND
3/24/2015	1,200	780	91.0	32.0	120.0	2.3	160.0	190.0	250.0	ND
4/26/2016	1,260	802	90.0	30.8	116.0	2.2	171.0	195.0	251.0	ND
3/23/2017	1,300	840	100.0	35.0	130.0	2.2	170.0	200.0	260.0	ND
3/26/2018	1,300	850	100.0	36.0	140.0	2.6	180.0	210.0	260.0	ND
5/19/2023	1,300	820	94.8	32.7	110.0	2.9	170.0	230.0	260.0	ND
Well 33924										
4/1/1989	1,240	728	100.0	32.9	129.0	-	158.0	148.0	245.0	0.3
6/1/1989	1,207	698	75.6	22.8	84.0	-	138.0	137.0	231.0	ND
1/1/1991	1,193	-	80.6	35.2	131.0	-	21.3	146.0	-	ND
6/1/1991	1,160	676	88.1	29.6	118.0	-	141.0	129.0	224.0	ND
3/1/1992	1,130	705	76.7	26.0	126.0	-	149.0	125.0	279.0	ND
6/1/1992	1,130	717	66.8	26.7	124.0	-	146.0	140.0	232.0	ND
3/1/1993	1,285	331	72.1	23.8	115.0	-	131.0	122.0	273.0	ND
2/1/1997	1,200	780	89.0	32.0	130.0	-	166.0	165.0	250.0	ND
3/1/1997	1,230	700	94.0	34.0	140.0	-	187.0	162.0	264.0	ND
6/1/1997	1,231	778	91.0	31.0	130.0	ND	171.0	165.0	264.0	ND
12/29/1997	1,200	710	82.0	30.0	130.0	2.0	156.0	162.0	230.0	ND
3/15/1998	1,200	710	82.0	30.0	110.0	2.0	191.0	146.0	240.0	ND
6/10/1998	1,170	658	79.0	28.0	123.0	2.0	157.0	151.0	293.0	ND
2/1/1999	1,170	698	75.0	27.0	123.0	3.0	160.0	130.0	259.0	ND
4/28/1999	1,210	667	76.0	27.0	118.0	3.0	148.0	140.0	268.0	ND
8/18/1999	1,140	714	79.0	27.0	116.0	3.0	180.0	165.0	268.0	ND
10/25/1999	1,150	721	80.0	28.0	131.0	3.0	110.0	150.0	281.0	ND
2/9/2000	1,050	619	82.0	28.0	108.0	3.0	100.0	140.0	293.0	ND
5/10/2000	1,060	716	80.0	29.0	112.0	3.0	173.0	141.0	268.0	ND
8/21/2000	1,210	722	82.0	29.0	105.0	3.0	162.0	156.0	268.0	ND
4/18/2001	1,210	705	85.0	30.0	130.0	3.0	163.0	157.0	281.0	ND
9/20/2001	1,190	672	81.0	30.0	125.0	3.0	152.0	149.0	275.0	ND
10/31/2001	1,200	680	81.0	29.0	143.0	3.0	162.0	159.0	281.0	ND
2/13/2002	1,160	675	80.0	29.0	129.0	3.5	143.0	152.0	268.0	ND
4/10/2002	1,180	682	84.0	31.0	124.0	2.9	151.0	155.0	230.0	ND
7/24/2002	1,210	706	80.0	29.0	127.0	2.9	156.0	156.0	221.0	ND
10/1/2002	1,210	669	83.0	30.0	122.0	2.9	151.0	162.0	206.0	1.8
1/1/2003	1,320	801	97.0	34.0	140.0	2.8	154.0	180.0	245.0	ND
4/4/2003	1,330	743	89.0	32.0	133.0	2.8	165.0	183.0	234.0	ND
10/1/2003	1,210	712	87.0	31.0	135.0	4.0	155.0	177.0	204.0	ND
4/1/2004	1,320	713	85.0	32.0	121.0	5.0	165.0	167.0	228.0	ND
7/1/2004	1,070	703	89.0	32.0	101.0	5.0	147.0	173.0	230.0	ND
10/1/2004	1,230	806	91.0	33.0	102.0	5.0	166.0	183.0	-	ND
2/1/2005	1,310	837	104.0	37.0	136.0	4.2	175.0	191.0	253.0	ND
7/1/2005	1,170	750	83.0	29.0	114.0	2.7	139.0	-	210.0	ND
11/1/2005	1,260	750	91.9	29.6	119.0	3.1	144.0	171.0	225.0	ND
4/1/2006	1,220	774	92.0	32.0	120.0	2.8	160.0	180.0	284.0	ND
4/1/2007	1,010	706	86.0	29.0	120.0	2.7	150.0	170.0	260.0	ND
4/1/2008	1,270	792	91.0	30.0	110.0	2.6	160.0	190.0	175.0	ND
4/15/2009	1,300	800	100.0	34.0	120.0	2.7	160.0	200.0	260.0	ND
4/15/2010	1,200	740	95.0	34.0	120.0	2.8	150.0	180.0	260.0	ND
4/27/2011	1,200	740	87.0	29.0	110.0	2.7	160.0	170.0	230.0	ND
4/30/2012	1,200	800	92.0	32.0	110.0	2.6	170.0	190.0	220.0	ND
5/16/2013	1,200	740	92.0	32.0	120.0	3.0	160.0	190.0	220.0	ND
6/12/2014	1,200	780	90.0	30.0	120.0	2.4	160.0	190.0	210.0	ND
3/13/2015	1,200	780	94.0	34.0	120.0	2.2	160.0	200.0	240.0	ND
7/28/2016	1,200	758	85.3	29.4	105.0	2.0	161.0	203.0	216.0	ND
3/30/2017	1,200	720	98.0	34.0	130.0	2.4	160.0	190.0	230.0	ND
Well 33926										
6/1/1991	1,160	684	83.4	28.3	125.0	-	145.0	124.0	223.0	ND
3/1/1992	1,060	674	75.9	24.1	127.0	-	139.0	111.0	269.0	ND
3/1/1993	1,182	584	67.8	21.1	110.0	-	135.0	101.0	274.0	ND
6/1/1993	1,020	623	60.5	22.4	116.0	-	125.0	107.0	225.0	ND
3/1/1994	1,120	665	80.0	25.0	122.0	-	129.0	117.0	-	0.4

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-6
Santa Margarita River Watershed
Water Quality Data

Wells Sampled on Camp Pendleton

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
8/1/1994	1,150	699	78.7	26.4	125.0	-	141.0	118.0	-	ND
6/29/1995	1,060	673	75.9	23.1	118.0	-	158.0	114.0	-	ND
1/2/1996	1,200	619	71.0	24.0	120.0	-	139.0	107.0	262.0	-
7/10/1996	-	-	-	-	-	-	-	-	-	-

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
(2) "ND" indicates not detected above minimum testing threshold

TABLE D-11
Santa Margarita River Watershed
Water Quality Data

Water Quality Samples of Domenigoni Valley

Site and Date (3)	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	Bicarbonate (as CaCO3) (mg/l)	Nitrate as N (mg/l)
Boer-2 (B2)										
8/9/12 12:04 PM	3,300	2,000	340.0	93.0	160.0	9.4	410.0	760.0	400.0	39.00
8/2/18 10:50 AM	560	290	25.0	9.5	57.0	3.2	100.0	46.0	55.0	0.13
1/30/19 1:37 PM	3,400	2,100	340.0	94.0	170.0	18.0	430.0	720.0	380.0	21.00
1/30/19 1:38 PM	2,850	2,110	345.0	98.0	183.0	14.0	400.0	670.0	370.0	20.80
D-10										
8/2/18 6:55 AM	4,500	3,000	390.0	120.0	290.0	11.0	300.0	1,400.0	530.0	7.40
1/24/19 8:20 AM	4,400	3,300	440.0	130.0	370.0	9.9	310.0	1,100.0	540.0	11.00
1/24/19 8:21 AM	4,460	3,400	446.0	133.0	424.0	8.0	400.0	1,500.0	565.0	10.20
D-4										
2/22/12 9:33 AM	2,700	1,800	370.0	120.0	170.0	7.2	130.0	1,100.0	650.0	44.00
8/9/12 9:10 AM	3,100	2,100	340.0	100.0	160.0	7.7	120.0	990.0	680.0	25.00
10/26/17 12:00 AM	2,200	1,600	280.0	78.0	160.0	7.5	120.0	630.0	610.0	3.80
10/26/17 3:30 PM	2,500	1,600	260.0	72.0	130.0	8.6	89.0	530.0	600.0	3.50
10/26/17 3:34 PM	2,277	-	-	-	-	-	-	-	-	-
3/27/18 12:00 AM	1,643	-	-	-	-	-	-	-	-	-
3/29/18 8:50 AM	2,600	1,700	260.0	78.0	140.0	8.5	110.0	760.0	520.0	6.00
8/2/18 7:25 AM	3,100	2,100	320.0	96.0	150.0	9.7	110.0	1,100.0	350.0	6.50
1/24/19 8:50 AM	2,200	1,800	290.0	79.0	130.0	7.6	93.0	600.0	560.0	5.50
12/17/19 11:48 AM	2,800	1,700	280.0	81.0	140.0	9.2	120.0	680.0	400.0	4.80
11/17/20 7:50 AM	2,300	2,000	310.0	91.0	140.0	8.7	86.0	770.0	340.0	4.60
6/24/21 10:25 AM	2,200	1,600	250.0	78.0	120.0	7.5	94.0	710.0	280.0	2.90
12/2/21 12:00 AM	2,900	1,800	300.0	96.0	140.0	8.3	120.0	860.0	430.0	3.50
6/30/22 12:00 AM	2,800	2,000	310.0	93.0	140.0	9.1	120.0	950.0	1,100.0	3.00
6/30/23 12:00 AM	3,000	2,100	320.0	110.0	150.0	10.0	120.0	970.0	470.0	2.80
D-6										
2/22/12 9:26 AM	3,000	1,900	290.0	90.0	340.0	7.3	320.0	870.0	510.0	48.00
8/9/12 9:34 AM	3,500	2,300	270.0	76.0	310.0	7.7	320.0	820.0	530.0	43.00
10/26/17 12:00 AM	6,360	4,900	670.0	210.0	820.0	9.0	570.0	2,530.0	800.0	11.00
10/26/17 2:57 PM	6,035	-	-	-	-	-	-	-	-	-
10/26/17 3:00 PM	6,200	4,900	620.0	180.0	630.0	14.0	440.0	1,800.0	850.0	10.00
3/29/18 12:00 AM	3,436	-	-	-	-	-	-	-	-	-
3/29/18 7:53 AM	5,600	4,400	500.0	180.0	550.0	13.0	590.0	1,800.0	700.0	14.00
8/2/18 7:51 AM	5,200	4,000	460.0	170.0	500.0	12.0	530.0	1,500.0	650.0	11.00
1/24/19 12:45 PM	6,700	4,500	540.0	180.0	520.0	11.0	480.0	1,400.0	710.0	14.00
1/24/19 12:46 PM	5,880	4,440	546.0	183.0	570.0	8.0	610.0	1,900.0	688.0	13.90
12/17/19 11:34 AM	8,100	4,500	490.0	190.0	510.0	14.0	440.0	1,600.0	360.0	12.00
11/17/20 8:32 AM	4,200	3,500	430.0	130.0	450.0	11.0	330.0	1,100.0	430.0	12.00
6/24/21 10:45 AM	5,100	3,500	490.0	160.0	360.0	12.0	280.0	1,400.0	540.0	13.00
12/2/21 12:00 AM	5,700	3,900	520.0	170.0	430.0	11.0	510.0	1,800.0	470.0	11.00
6/30/22 12:00 AM	3,500	2,400	350.0	100.0	230.0	10.0	200.0	1,100.0	560.0	5.20
6/30/23 12:00 AM	5,700	4,900	600.0	200.0	560.0	15.0	620.0	1,900.0	530.0	18.00
D-8										
2/22/12 9:46 AM	1,700	1,100	160.0	40.0	170.0	4.7	210.0	360.0	290.0	71.00
8/9/12 10:09 AM	2,200	1,500	190.0	54.0	200.0	6.1	240.0	470.0	380.0	73.00
10/27/17 12:00 AM	2,879	-	-	-	-	-	-	-	-	-
10/27/17 3:04 PM	2,879	-	-	-	-	-	-	-	-	-
10/27/17 3:05 PM	2,900	2,000	280.0	86.0	200.0	8.2	290.0	580.0	440.0	13.00
3/27/18 12:00 AM	2,157	-	-	-	-	-	-	-	-	-
3/28/18 1:20 PM	3,220	2,200	329.0	94.0	280.0	7.0	410.0	760.0	394.0	18.30
3/28/18 1:25 PM	3,200	2,200	290.0	91.0	270.0	8.8	410.0	760.0	400.0	33.00
8/1/18 11:25 AM	3,700	2,200	280.0	91.0	210.0	8.1	370.0	830.0	670.0	13.00
8/1/18 11:26 AM	3,000	2,360	338.0	102.0	254.0	7.0	416.0	846.0	481.0	13.70
1/24/19 9:45 AM	3,300	2,400	310.0	87.0	270.0	8.1	370.0	600.0	410.0	22.00
12/17/19 9:45 AM	4,100	2,300	320.0	97.0	280.0	10.0	450.0	760.0	400.0	20.00
11/17/20 9:24 AM	3,600	2,700	370.0	110.0	310.0	9.9	440.0	770.0	330.0	19.00
6/24/21 10:03 AM	4,100	2,600	380.0	120.0	280.0	9.2	440.0	880.0	390.0	12.00
12/2/21 12:00 AM	4,200	2,500	330.0	110.0	270.0	8.4	470.0	920.0	370.0	12.00
6/30/22 12:00 AM	3,800	2,300	340.0	99.0	250.0	9.1	400.0	910.0	420.0	11.00
6/30/23 12:00 AM	3,700	2,400	330.0	94.0	260.0	9.5	120.0	970.0	470.0	2.80
DPB-Dom										

Notes:
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TABLE D-11
Santa Margarita River Watershed
Water Quality Data

Water Quality Samples of Domenigoni Valley

Site and Date (3)	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	Bicarbonate (as CaCO3) (mg/l)	Nitrate as N (mg/l)
2/22/12 10:32 AM	2,600	1,500	270.0	59.0	300.0	8.1	140.0	100.0	1,600.0	50.00
8/9/12 11:25 AM	2,100	1,400	160.0	54.0	190.0	5.3	190.0	330.0	420.0	170.00
8/2/18 9:47 AM	1,300	840	89.0	33.0	120.0	4.3	100.0	300.0	210.0	13.00
1/24/19 1:45 PM	1,200	820	87.0	31.0	130.0	3.9	88.0	220.0	230.0	13.00
MO-1										
1994	-	1,763	-	-	-	-	-	-	-	7.20
1995	-	1,875	-	-	-	-	-	-	-	9.10
1996	-	1,530	-	-	-	-	-	-	-	6.20
1997	-	1,000	-	-	-	-	-	-	-	4.80
1998	-	660	-	-	-	-	-	-	-	1.30
8/16/12 11:26 AM	1,500	1,000	100.0	37.0	160.0	5.3	120.0	270.0	400.0	7.00
3/2/15 12:00 AM	1,200	810	85.9	30.2	140.0	4.9	100.0	250.0	250.0	8.58
10/25/17 12:00 AM	1,240	840	97.0	33.0	160.0	4.8	120.0	260.0	260.0	8.30
10/25/17 10:47 AM	1,356	-	-	-	-	-	-	-	-	-
10/25/17 10:50 AM	1,400	860	88.0	30.0	130.0	5.4	100.0	240.0	250.0	8.00
3/27/18 12:00 AM	1,781	-	-	-	-	-	-	-	-	-
3/27/18 1:00 PM	1,600	1,000	110.0	39.0	150.0	6.2	140.0	340.0	340.0	7.20
7/31/18 2:05 PM	1,900	2,800	130.0	47.0	150.0	6.5	150.0	360.0	460.0	4.80
1/23/19 9:53 AM	2,100	1,400	200.0	69.0	200.0	8.1	150.0	370.0	780.0	2.30
MO-2										
1994	-	1,093	-	-	-	-	-	-	-	20.30
1995	-	981	-	-	-	-	-	-	-	20.00
1996	-	920	-	-	-	-	-	-	-	15.60
1997	-	864	-	-	-	-	-	-	-	14.00
1998	-	942	-	-	-	-	-	-	-	19.00
8/16/12 10:00 AM	1,000	670	56.0	20.0	140.0	2.7	79.0	170.0	320.0	3.16
3/2/15 11:26 AM	1,000	650	58.7	21.4	140.0	3.2	88.0	170.0	280.0	2.48
10/25/17 12:00 AM	980	640	62.0	22.0	150.0	ND	87.0	180.0	260.0	2.70
10/25/17 3:00 PM	1,090	-	-	-	-	-	-	-	-	-
10/25/17 3:05 PM	1,000	640	56.0	20.0	120.0	3.1	77.0	160.0	260.0	2.80
3/27/18 12:00 AM	1,272	-	-	-	-	-	-	-	-	-
3/28/18 9:00 AM	1,000	640	56.0	21.0	130.0	3.1	79.0	180.0	270.0	2.20
7/31/18 9:55 AM	1,000	670	51.0	19.0	110.0	2.8	79.0	180.0	260.0	1.60
1/22/19 12:05 PM	970	630	58.0	21.0	120.0	3.2	89.0	170.0	280.0	1.50
12/16/19 9:40 AM	1,000	440	55.0	21.0	120.0	3.1	87.0	180.0	240.0	1.30
11/16/20 9:10 AM	970	630	60.0	22.0	130.0	3.3	67.0	150.0	230.0	3.60
6/23/21 8:16 AM	1,000	660	58.0	21.0	120.0	3.0	84.0	160.0	200.0	2.00
12/1/21 12:00 AM	960	620	54.0	21.0	110.0	2.8	85.0	170.0	200.0	1.90
6/29/22 12:00 AM	940	630	55.0	19.0	120.0	3.1	82.0	180.0	220.0	2.20
6/29/23 12:00 AM	940	620	53.0	20.0	120.0	2.9	70.0	140.0	240.0	5.30
MO-3										
1994	-	992	-	-	-	-	-	-	-	2.40
1995	-	967	-	-	-	-	-	-	-	3.40
1996	-	936	-	-	-	-	-	-	-	3.30
1997	-	880	-	-	-	-	-	-	-	2.90
1998	-	900	-	-	-	-	-	-	-	5.50
8/16/12 3:43 PM	2,900	1,900	280.0	80.0	150.0	6.7	110.0	960.0	270.0	19.42
3/3/15 12:00 AM	2,400	1,700	274.0	77.7	150.0	6.8	120.0	780.0	480.0	6.55
10/26/17 12:00 AM	2,256	-	-	-	-	-	-	-	-	-
10/26/17 1:05 PM	2,600	1,700	270.0	75.0	140.0	8.0	82.0	530.0	510.0	5.30
3/27/18 12:00 AM	3,094	-	-	-	-	-	-	-	-	-
3/28/18 11:15 AM	2,600	1,900	310.0	91.0	150.0	9.5	110.0	800.0	690.0	3.90
3/28/18 11:20 AM	2,590	1,980	348.0	95.0	157.0	9.0	113.0	827.0	683.0	3.50
8/1/18 9:25 AM	3,000	1,800	280.0	84.0	140.0	8.5	120.0	770.0	740.0	3.30
1/23/19 2:02 PM	2,600	1,900	320.0	88.0	150.0	8.3	110.0	750.0	660.0	3.80
MO-30C										
10/25/17 12:00 AM	2,630	-	-	-	-	-	-	-	-	-
10/25/17 1:56 PM	2,630	-	-	-	-	-	-	-	-	-
10/25/17 2:00 PM	2,900	1,700	310.0	95.0	130.0	47.0	91.0	270.0	1,400.0	0.14
3/27/18 12:00 AM	2,949	-	-	-	-	-	-	-	-	-
3/27/18 11:10 AM	2,500	1,700	310.0	94.0	150.0	41.0	93.0	320.0	220.0	ND
3/27/18 11:15 AM	2,540	1,690	330.0	84.0	147.0	24.0	89.9	297.0	1,230.0	ND

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Water Quality Data

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7/31/18 10:20 AM	2,800	1,700	280.0	78.0	130.0	23.0	89.0	310.0	1,400.0	ND
1/22/19 1:05 PM	2,700	1,700	340.0	86.0	140.0	26.0	96.0	280.0	1,300.0	ND
MO-32B										
8/16/12 9:20 AM	1,000	680	61.0	32.0	110.0	21.0	120.0	160.0	190.0	7.68
3/2/15 9:09 AM	1,200	720	79.1	37.8	130.0	19.0	140.0	150.0	240.0	9.03
10/25/17 12:00 AM	1,140	650	97.0	110.0	140.0	120.0	150.0	160.0	220.0	9.00
10/25/17 10:50 AM	1,200	760	79.0	51.0	120.0	43.0	140.0	140.0	230.0	9.10
10/25/17 11:33 AM	1,310	-	-	-	-	-	-	-	-	-
3/27/18 12:00 AM	1,327	-	-	-	-	-	-	-	-	-
3/27/18 10:55 AM	1,200	770	38.0	44.0	52.0	50.0	150.0	160.0	220.0	8.90
7/31/18 10:30 AM	1,200	780	70.0	31.0	110.0	13.0	150.0	150.0	230.0	8.60
1/22/19 1:30 PM	1,100	710	80.0	40.0	130.0	25.0	160.0	160.0	230.0	8.40
MO-5B										
10/25/17 12:00 AM	2,970	2,600	440.0	130.0	200.0	4.8	120.0	1,610.0	150.0	1.40
10/25/17 4:00 PM	2,900	2,700	360.0	120.0	160.0	5.6	91.0	1,400.0	150.0	1.40
10/25/17 4:19 PM	3,017	-	-	-	-	-	-	-	-	-
3/27/18 12:00 AM	3,590	-	-	-	-	-	-	-	-	-
3/27/18 11:30 AM	3,000	2,700	380.0	120.0	180.0	5.8	100.0	1,200.0	150.0	1.30
7/31/18 10:05 AM	3,900	2,800	340.0	120.0	160.0	5.1	93.0	1,800.0	140.0	1.00
1/22/19 12:45 PM	3,600	2,900	420.0	130.0	170.0	4.8	85.0	1,400.0	150.0	0.96
12/16/19 10:08 AM	3,900	2,600	430.0	130.0	170.0	5.8	110.0	1,400.0	150.0	0.84
11/16/20 9:43 AM	3,600	2,900	460.0	140.0	180.0	6.7	83.0	1,200.0	120.0	0.83
6/23/21 8:35 AM	3,800	3,000	440.0	140.0	170.0	5.1	96.0	1,700.0	110.0	0.72
12/1/21 12:00 AM	3,900	3,000	440.0	140.0	170.0	4.9	100.0	1,700.0	110.0	1.90
6/29/22 12:00 AM	4,000	3,100	470.0	140.0	170.0	5.5	110.0	1,900.0	1,700.0	0.82
6/29/23 12:00 AM	3,900	3,100	460.0	140.0	180.0	5.5	110.0	1,800.0	120.0	0.82
MO-6										
1994	-	4,910	-	-	-	-	-	-	-	31.10
1995	-	5,305	-	-	-	-	-	-	-	42.00
1996	-	5,170	-	-	-	-	-	-	-	27.50
1997	-	5,150	-	-	-	-	-	-	-	18.00
1998	-	5,150	-	-	-	-	-	-	-	25.00
8/17/12 10:18 AM	2,300	1,500	150.0	58.0	210.0	4.9	290.0	450.0	390.0	2.05
3/2/15 12:00 AM	2,200	1,300	153.0	59.4	220.0	4.9	230.0	470.0	380.0	4.52
10/27/17 12:00 AM	1,536	-	-	-	-	-	-	-	-	-
10/27/17 12:54 PM	1,536	-	-	-	-	-	-	-	-	-
10/27/17 12:55 PM	1,700	960	94.0	37.0	140.0	3.8	120.0	290.0	290.0	0.81
3/27/18 12:00 AM	1,630	-	-	-	-	-	-	-	-	-
3/29/18 10:40 AM	1,300	840	85.0	35.0	140.0	3.7	120.0	290.0	330.0	0.78
8/2/18 8:00 AM	1,200	750	75.0	30.0	130.0	3.4	100.0	230.0	260.0	0.73
8/2/18 8:25 AM	1,160	724	76.0	30.0	139.0	ND	106.0	219.0	284.0	0.60
1/24/19 2:23 PM	1,000	740	76.0	30.0	120.0	3.4	96.0	190.0	290.0	0.62
1/24/19 2:24 PM	1,160	748	75.0	30.0	136.0	3.0	110.0	210.0	282.0	0.60
12/17/19 1:18 PM	1,600	860	99.0	40.0	140.0	4.1	140.0	290.0	250.0	0.79
11/17/20 12:16 PM	-	850	90.0	37.0	140.0	4.0	120.0	210.0	260.0	1.00
6/24/21 8:36 AM	1,200	820	82.0	35.0	130.0	3.7	120.0	200.0	230.0	0.61
12/2/21 12:00 AM	1,200	790	77.0	33.0	120.0	3.4	120.0	220.0	230.0	1.40
6/30/22 12:00 AM	1,400	850	90.0	35.0	130.0	3.9	140.0	280.0	220.0	0.63
6/30/23 12:00 AM	1,400	930	98.0	39.0	130.0	4.2	160.0	270.0	250.0	1.00
MW-1 (D-7)										
1994	-	ND	-	-	-	-	-	-	-	15.90
1995	-	ND	-	-	-	-	-	-	-	12.20
1996	-	ND	-	-	-	-	-	-	-	13.10
1997	-	ND	-	-	-	-	-	-	-	16.80
1998	-	ND	-	-	-	-	-	-	-	10.30
10/27/17 12:00 AM	4,329	-	-	-	-	-	-	-	-	-
10/27/17 2:44 PM	4,329	-	-	-	-	-	-	-	-	-
10/27/17 2:45 PM	4,800	3,600	470.0	150.0	320.0	12.0	480.0	1,100.0	530.0	22.00
3/27/18 12:00 AM	5,188	-	-	-	-	-	-	-	-	-
3/29/18 8:15 AM	4,300	3,300	470.0	150.0	260.0	12.0	580.0	1,100.0	470.0	3.00
8/2/18 7:25 AM	5,000	3,100	430.0	140.0	260.0	11.0	550.0	1,100.0	460.0	23.00
8/2/18 7:31 AM	4,020	2,980	500.0	146.0	270.0	9.0	550.0	1,100.0	476.0	22.50

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1/24/19 8:00 AM	4,700	3,100	480.0	140.0	240.0	9.3	440.0	870.0	500.0	24.00
1/24/19 8:01 AM	4,340	3,030	468.0	144.0	274.0	9.0	550.0	1,100.0	508.0	23.20
MW-2										
1994	-	-	-	-	-	-	-	-	-	0.70
10/27/17 12:00 AM	4,434	-	-	-	-	-	-	-	-	-
10/27/17 1:59 PM	4,434	-	-	-	-	-	-	-	-	-
10/27/17 2:00 PM	4,600	3,000	350.0	140.0	290.0	8.5	400.0	150.0	1,200.0	130.00
3/27/18 12:00 AM	7,564	-	-	-	-	-	-	-	-	-
3/29/18 9:30 AM	6,760	4,000	567.0	234.0	452.0	8.0	807.0	319.0	1,150.0	246.00
3/29/18 9:38 AM	6,000	4,500	530.0	220.0	420.0	11.0	800.0	340.0	1,200.0	300.00
8/1/18 2:04 PM	5,000	2,800	320.0	140.0	300.0	8.5	560.0	210.0	890.0	110.00
1/24/19 12:46 PM	4,800	3,200	440.0	160.0	310.0	8.9	470.0	220.0	980.0	170.00
12/17/19 12:00 PM	8,500	4,000	530.0	200.0	380.0	11.0	630.0	280.0	1,200.0	240.00
11/17/20 10:57 AM	4,900	3,400	500.0	190.0	360.0	11.0	510.0	260.0	920.0	100.00
6/24/21 7:36 AM	4,800	3,300	400.0	190.0	360.0	9.6	580.0	260.0	970.0	150.00
12/2/21 12:00 AM	5,400	3,100	410.0	160.0	320.0	7.7	520.0	380.0	850.0	150.00
6/30/22 12:00 AM	4,100	2,400	330.0	130.0	280.0	8.1	440.0	300.0	870.0	80.00
6/30/23 12:00 AM	3,900	2,400	330.0	120.0	280.0	9.1	430.0	230.0	930.0	62.00
Stiefel 1 (S1)										
8/9/12 10:40 AM	2,600	1,900	300.0	80.0	170.0	8.4	150.0	620.0	760.0	52.00
10/27/17 3:20 PM	2,600	1,600	260.0	74.0	150.0	8.7	97.0	490.0	680.0	5.10
3/27/18 12:00 AM	1,686	-	-	-	-	-	-	-	-	-
3/29/18 9:30 AM	2,600	1,600	270.0	77.0	150.0	9.0	120.0	580.0	760.0	4.30
8/2/18 8:30 AM	2,900	1,700	280.0	80.0	160.0	9.4	130.0	600.0	780.0	3.30
8/2/18 8:33 AM	2,310	1,850	302.0	82.0	165.0	8.0	134.0	544.0	788.0	2.70
1/24/19 12:32 PM	2,100	1,600	270.0	73.0	140.0	7.6	110.0	480.0	770.0	3.20
12/17/19 11:20 AM	2,800	1,600	270.0	78.0	150.0	9.4	130.0	560.0	720.0	4.10
11/17/20 10:00 AM	2,300	1,800	270.0	77.0	160.0	9.2	120.0	520.0	610.0	ND
6/24/21 8:48 AM	2,600	1,800	290.0	82.0	160.0	8.8	140.0	570.0	610.0	ND
6/30/22 12:00 AM	550	320	46.0	7.1	47.0	4.3	50.0	71.0	130.0	0.84
6/30/23 12:00 AM	2,500	1,600	260.0	72.0	150.0	9.1	130.0	600.0	580.0	4.70
WTC New										
3/29/18 10:56 AM	2,090	1,270	199.0	58.0	165.0	6.0	202.0	320.0	395.0	21.80
3/29/18 11:00 AM	2,100	1,300	180.0	54.0	150.0	7.1	210.0	350.0	390.0	27.00
8/2/18 8:47 AM	2,400	1,400	190.0	59.0	160.0	7.5	230.0	390.0	390.0	28.00
8/2/18 8:52 AM	2,020	1,310	204.0	59.0	174.0	6.0	225.0	352.0	390.0	26.40
1/30/19 12:28 PM	2,100	1,300	180.0	55.0	150.0	7.2	210.0	340.0	420.0	25.00
12/17/19 1:05 PM	2,300	1,300	190.0	55.0	140.0	7.6	210.0	320.0	400.0	24.00
11/17/20 11:27 AM	1,800	1,200	180.0	54.0	140.0	7.3	180.0	290.0	300.0	25.00
6/24/21 8:30 AM	2,100	1,400	190.0	62.0	150.0	7.3	230.0	320.0	310.0	29.00
12/2/21 12:00 AM	2,000	1,200	180.0	58.0	140.0	6.9	220.0	310.0	330.0	23.00
6/30/22 12:00 AM	1,900	1,100	150.0	47.0	130.0	6.7	200.0	330.0	260.0	19.00
6/30/23 12:00 AM	630	390	43.0	15.0	56.0	3.6	66.0	110.0	110.0	0.88
WCT-3										
8/9/12 10:50 AM	1,900	1,200	180.0	49.0	150.0	6.6	200.0	260.0	440.0	110.00
WM-B										
1997	-	722	-	-	-	-	-	-	-	3.00
1998	-	851	-	-	-	-	-	-	-	7.20
8/16/12 12:45 PM	3,300	2,300	370.0	100.0	140.0	9.7	93.0	750.0	1,100.0	ND
3/2/15 12:45 PM	3,200	2,100	396.0	106.0	160.0	10.0	110.0	740.0	1,100.0	ND
10/26/17 12:00 AM	3,223	-	-	-	-	-	-	-	-	-
10/26/17 10:09 AM	3,223	-	-	-	-	-	-	-	-	-
10/26/17 10:10 AM	3,900	2,700	390.0	130.0	150.0	16.0	88.0	1,000.0	810.0	0.41
3/27/18 12:00 AM	4,097	-	-	-	-	-	-	-	-	-
3/27/18 2:57 PM	3,300	2,800	410.0	150.0	170.0	18.0	120.0	1,300.0	720.0	0.37
7/31/18 1:07 PM	3,600	2,700	360.0	130.0	150.0	16.0	110.0	1,200.0	790.0	0.22
1/23/19 8:37 AM	3,600	2,700	440.0	150.0	170.0	18.0	90.0	1,100.0	760.0	0.26
1/23/19 8:38 AM	3,200	3,300	439.0	151.0	177.0	16.0	110.0	1,400.0	772.0	ND
12/16/19 1:26 PM	790	2,600	410.0	150.0	160.0	19.0	120.0	1,100.0	600.0	ND
11/16/20 11:24 AM	2,900	2,600	440.0	150.0	160.0	18.0	90.0	970.0	530.0	ND
6/23/21 9:51 AM	-	2,800	420.0	150.0	160.0	17.0	120.0	1,200.0	500.0	ND

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TABLE D-11
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Water Quality Data

Water Quality Samples of Domenigoni Valley

Site and Date (3)	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	Bicarbonate (as CaCO3) (mg/l)	Nitrate as N (mg/l)
12/1/21 12:00 AM	4,300	3,100	450.0	180.0	170.0	21.0	120.0	1,700.0	400.0	0.33
6/30/22 12:00 AM	4,000	2,800	410.0	150.0	160.0	20.0	120.0	1,400.0	520.0	0.22
6/29/23 12:00 AM	3,400	2,300	400.0	120.0	150.0	13.0	110.0	960.0	750.0	ND
WM-D										
1997	-	ND	-	-	-	-	-	-	-	11.10
1998	-	ND	-	-	-	-	-	-	-	3.60
10/26/17 12:00 AM	2,780	2,000	390.0	110.0	170.0	9.4	110.0	520.0	1,130.0	0.42
10/26/17 9:15 AM	3,300	2,000	350.0	100.0	140.0	11.0	70.0	370.0	1,300.0	0.18
3/27/18 12:00 AM	3,451	-	-	-	-	-	-	-	-	-
3/28/18 8:00 AM	2,800	2,000	360.0	110.0	150.0	10.0	100.0	610.0	1,300.0	ND
WM-F										
1997	-	ND	-	-	-	-	-	-	-	5.00
1998	-	ND	-	-	-	-	-	-	-	4.80
10/26/17 12:00 AM	911	-	-	-	-	-	-	-	-	-
10/26/17 8:05 AM	940	580	60.0	17.0	90.0	5.8	97.0	91.0	180.0	2.50
3/27/18 12:00 AM	1,251	-	-	-	-	-	-	-	-	-
3/27/18 2:00 PM	1,000	660	74.0	21.0	100.0	6.6	100.0	160.0	240.0	2.80
7/31/18 11:50 AM	1,100	710	74.0	22.0	93.0	6.3	97.0	160.0	270.0	1.80
1/22/19 3:00 PM	1,240	752	95.0	28.0	117.0	6.0	110.0	160.0	415.0	1.10
1/22/19 3:05 PM	1,100	790	100.0	29.0	110.0	6.6	110.0	170.0	430.0	1.30
12/16/19 11:58 AM	1,100	600	87.0	26.0	100.0	7.0	110.0	160.0	310.0	1.60
11/16/20 12:36 PM	1,000	660	80.0	23.0	98.0	6.6	84.0	130.0	230.0	2.40
6/23/21 10:56 AM	1,300	820	110.0	33.0	120.0	7.3	110.0	140.0	360.0	0.71
12/1/21 12:00 AM	1,300	790	110.0	34.0	120.0	7.3	110.0	150.0	420.0	0.87
6/29/22 12:00 AM	1,200	750	100.0	29.0	110.0	7.2	110.0	160.0	330.0	1.90
6/29/23 12:00 AM	960	640	64.0	20.0	100.0	5.5	98.0	170.0	180.0	3.80
WM-G										
1998	-	1,140	-	-	-	-	-	-	-	0.80
8/16/12 1:30 PM	1,500	910	110.0	45.0	150.0	24.0	240.0	170.0	250.0	4.97
10/26/17 12:00 AM	1,110	700	71.0	21.0	150.0	4.7	140.0	200.0	120.0	12.00
10/26/17 11:45 AM	1,200	710	67.0	19.0	120.0	5.1	120.0	190.0	120.0	12.00
3/27/18 12:00 AM	1,306	-	-	-	-	-	-	-	-	-
3/28/18 10:08 AM	1,000	630	57.0	17.0	120.0	4.9	110.0	200.0	100.0	15.00
8/1/18 8:15 AM	1,100	660	56.0	17.0	110.0	4.7	120.0	210.0	110.0	11.00
1/23/19 11:31 AM	1,000	690	63.0	18.0	120.0	5.4	120.0	200.0	110.0	12.00
12/16/19 2:52 PM	970	580	51.0	15.0	110.0	4.8	110.0	200.0	120.0	12.00
11/16/20 1:35 PM	700	510	41.0	12.0	96.0	4.8	60.0	150.0	86.0	8.30
6/23/21 11:51 AM	800	550	42.0	12.0	96.0	3.9	70.0	150.0	82.0	8.80
12/1/21 12:00 AM	730	480	33.0	10.0	87.0	3.5	57.0	140.0	66.0	14.00
6/29/22 12:00 AM	720	490	36.0	10.0	89.0	4.1	61.0	160.0	56.0	13.00
6/29/23 12:00 AM	660	470	31.0	9.5	84.0	3.9	53.0	130.0	49.0	15.00
WM-HA										
1997	-	911	-	-	-	-	-	-	-	51.40
1998	-	1,260	-	-	-	-	-	-	-	59.50
8/16/12 2:35 PM	3,100	1,900	220.0	85.0	250.0	5.5	390.0	290.0	490.0	81.29
3/3/15 1:47 PM	3,000	1,800	249.0	98.6	200.0	5.8	420.0	220.0	450.0	74.52
10/26/17 12:00 AM	3,802	-	-	-	-	-	-	-	-	-
10/26/17 11:45 AM	4,500	2,500	330.0	130.0	240.0	8.0	420.0	370.0	690.0	100.00
10/26/17 1:57 PM	3,802	-	-	-	-	-	-	-	-	-
3/27/18 12:00 AM	5,009	-	-	-	-	-	-	-	-	-
3/28/18 12:15 PM	4,100	2,800	390.0	170.0	230.0	7.6	580.0	630.0	670.0	74.00
3/28/18 12:20 PM	4,200	2,760	454.0	179.0	247.0	7.0	592.0	624.0	673.0	71.50
8/1/18 10:30 AM	4,900	2,700	310.0	130.0	250.0	7.7	550.0	480.0	560.0	100.00
1/23/19 3:10 PM	4,400	2,700	420.0	170.0	250.0	7.1	550.0	600.0	680.0	81.00
12/17/19 8:28 AM	4,800	3,000	360.0	170.0	250.0	8.2	530.0	610.0	730.0	80.00
11/16/20 2:16 PM	4,200	2,900	440.0	170.0	280.0	8.7	450.0	520.0	610.0	85.00
6/23/21 12:49 PM	4,400	2,700	340.0	140.0	270.0	7.8	520.0	480.0	510.0	77.00
12/1/21 12:00 AM	5,000	3,100	420.0	170.0	290.0	7.9	620.0	650.0	680.0	85.00
6/29/22 12:00 AM	4,800	3,000	450.0	160.0	310.0	8.9	630.0	660.0	690.0	83.00
6/29/23 12:00 AM	4,600	3,100	400.0	160.0	290.0	8.5	580.0	650.0	650.0	83.00
WM-K										

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Water Quality Data

Water Quality Samples of Domenigoni Valley

Site and Date (3)	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	Bicarbonate (as CaCO3) (mg/l)	Nitrate as N (mg/l)
1997	-	1,960	-	-	-	-	-	-	-	18.50
1998	-	1,400	-	-	-	-	-	-	-	6.50
8/17/12 12:00 AM	9,400	5,800	670.0	290.0	760.0	17.0	1,100.0	2,600.0	700.0	20.10
3/3/15 11:10 AM	6,900	6,200	813.0	315.0	820.0	16.0	1,100.0	2,900.0	770.0	21.90
10/27/17 12:00 AM	7,413	-	-	-	-	-	-	-	-	-
10/27/17 9:45 AM	7,800	6,200	780.0	290.0	720.0	24.0	670.0	2,000.0	810.0	14.00
3/27/18 12:00 AM	8,855	-	-	-	-	-	-	-	-	-
3/28/18 2:35 PM	7,500	6,100	640.0	300.0	710.0	18.0	920.0	2,500.0	800.0	16.00
8/1/18 1:15 PM	7,100	5,900	650.0	260.0	640.0	13.0	850.0	2,800.0	470.0	13.00
8/1/18 1:21 PM	6,620	5,960	723.0	282.0	723.0	11.0	827.0	2,650.0	767.0	12.50
1/24/19 11:35 AM	8,400	5,700	690.0	270.0	670.0	18.0	560.0	1,800.0	790.0	12.00
12/17/19 10:18 AM	10,000	5,700	710.0	260.0	650.0	21.0	610.0	1,900.0	800.0	12.00
12/17/19 10:25 AM	6,700	5,700	700.0	240.0	690.0	17.0	870.0	2,800.0	640.0	12.00
11/17/20 8:58 AM	9,000	6,200	770.0	320.0	770.0	18.0	710.0	1,700.0	580.0	13.00
6/23/21 2:26 PM	8,400	6,700	770.0	300.0	750.0	19.0	1,000.0	2,700.0	590.0	20.00
12/1/21 12:00 AM	8,800	4,600	730.0	310.0	720.0	16.0	990.0	2,600.0	620.0	34.00
6/29/22 12:00 AM	6,900	6,200	810.0	310.0	780.0	24.0	1,000.0	2,600.0	610.0	42.00
6/30/23 12:00 AM	7,600	6,900	810.0	300.0	750.0	24.0	950.0	2,800.0	610.0	46.00
WM-L										
1997	-	ND	-	-	-	-	-	-	-	61.30
1998	-	ND	-	-	-	-	-	-	-	16.00
10/27/17 12:00 AM	2,867	-	-	-	-	-	-	-	-	-
10/27/17 8:24 AM	2,867	-	-	-	-	-	-	-	-	-
10/27/17 8:27 AM	3,000	2,000	240.0	67.0	270.0	9.0	270.0	440.0	500.0	17.00
3/27/18 12:00 AM	6,563	-	-	-	-	-	-	-	-	-
3/28/18 1:45 PM	5,500	4,000	450.0	170.0	510.0	12.0	770.0	1,400.0	690.0	20.00
8/1/18 11:55 AM	4,200	2,900	320.0	100.0	340.0	11.0	600.0	1,100.0	610.0	18.00
8/1/18 11:59 AM	3,890	2,790	398.0	112.0	427.0	8.0	564.0	918.0	532.0	18.10
1/24/19 9:51 AM	6,900	4,700	580.0	190.0	520.0	11.0	680.0	1,200.0	710.0	14.00
WM-M										
1997	-	1,240	-	-	-	-	-	-	-	11.00
1998	-	1,620	-	-	-	-	-	-	-	19.00
8/17/12 12:00 AM	-	-	-	-	-	-	360.0	-	-	-
8/17/12 12:20 PM	2,800	1,900	250.0	73.0	170.0	7.5	-	600.0	310.0	14.45
3/3/15 10:30 AM	3,300	2,100	331.0	90.5	190.0	8.2	370.0	810.0	230.0	17.16
10/27/17 12:00 AM	3,520	2,400	400.0	110.0	230.0	8.2	450.0	1,050.0	280.0	19.00
10/27/17 11:57 AM	3,201	-	-	-	-	-	-	-	-	-
10/27/17 12:00 PM	3,300	2,400	360.0	110.0	190.0	9.8	340.0	800.0	250.0	20.00
3/27/18 12:00 AM	4,393	-	-	-	-	-	-	-	-	-
3/29/18 12:25 PM	3,400	2,600	370.0	110.0	210.0	12.0	390.0	1,000.0	280.0	22.00
8/2/18 10:10 AM	4,900	2,400	360.0	110.0	210.0	10.0	440.0	1,100.0	260.0	20.00
1/25/19 9:46 AM	4,000	1,800	380.0	110.0	200.0	10.0	360.0	830.0	310.0	20.00
12/17/19 12:55 PM	3,300	2,600	390.0	110.0	210.0	8.4	490.0	960.0	240.0	24.00
12/17/19 2:53 PM	4,000	2,500	360.0	110.0	200.0	10.0	440.0	830.0	240.0	23.00
11/17/20 2:01 PM	3,100	2,500	390.0	110.0	220.0	11.0	360.0	840.0	230.0	20.00
6/24/21 10:39 AM	4,200	3,000	430.0	130.0	220.0	10.0	500.0	1,000.0	210.0	23.00
12/2/21 12:00 AM	3,700	2,400	350.0	110.0	210.0	9.2	440.0	950.0	240.0	17.00
6/30/22 12:00 AM	4,400	2,900	430.0	120.0	230.0	11.0	550.0	1,200.0	1,600.0	20.00
6/30/23 12:00 AM	3,700	2,600	350.0	99.0	210.0	10.0	430.0	950.0	250.0	23.00
DVL Weir 1										
8/1/18 9:23 AM	880	-	-	-	-	-	-	-	-	-
1/22/19 11:56 AM	1,000	660	77.0	26.0	83.0	10.0	96.0	250.0	140.0	0.80
12/16/19 11:09 AM	990	640	75.0	27.0	78.0	9.9	91.0	260.0	110.0	0.87
11/16/20 9:45 AM	820	620	73.0	26.0	80.0	9.9	71.0	210.0	120.0	0.72
6/23/21 9:44 AM	940	630	70.0	25.0	78.0	9.5	86.0	220.0	110.0	0.56
12/1/21 12:00 AM	930	600	67.0	25.0	74.0	9.1	88.0	230.0	110.0	0.94
6/29/22 12:00 AM	900	610	69.0	24.0	75.0	9.6	88.0	240.0	120.0	0.50
6/29/23 12:00 AM	960	660	73.0	27.0	80.0	9.9	83.0	260.0	120.0	0.81
DVL Weir 2										
8/1/18 9:32 AM	1,330	-	-	-	-	-	-	-	-	-
1/22/19 12:08 PM	1,500	1,100	120.0	74.0	91.0	7.7	100.0	590.0	28.0	4.20
12/16/19 11:29 AM	1,900	1,200	130.0	81.0	89.0	9.0	97.0	680.0	15.0	3.60

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Site and Date (3)	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	Bicarbonate (as CaCO3) (mg/l)	Nitrate as N (mg/l)
11/16/20 9:45 AM	2,200	1,500	140.0	110.0	96.0	9.4	74.0	710.0	5.0	6.00
6/23/21 9:35 AM	1,600	1,200	120.0	88.0	90.0	8.0	91.0	660.0	11.0	4.00
12/1/21 12:00 AM	1,700	1,200	110.0	87.0	87.0	7.9	94.0	650.0	21.0	3.80
6/29/22 12:00 AM	1,700	1,200	110.0	78.0	86.0	8.0	94.0	700.0	22.0	3.30
6/29/23 12:00 AM	2,100	1,500	150.0	100.0	96.0	9.2	89.0	910.0	16.0	3.80
DVL Weir 3										
8/1/18 9:40 AM	790	-	-	-	-	-	-	-	-	-
1/22/19 12:13 PM	1,100	760	110.0	33.0	72.0	4.4	88.0	370.0	100.0	ND
12/16/19 11:20 AM	1,100	690	100.0	31.0	70.0	4.9	85.0	340.0	100.0	ND
11/16/20 9:55 AM	970	700	98.0	30.0	69.0	4.7	65.0	290.0	97.0	ND
6/23/21 10:00 AM	1,000	730	98.0	29.0	69.0	4.5	79.0	310.0	100.0	ND
12/1/21 12:00 AM	1,000	700	96.0	30.0	67.0	4.6	82.0	330.0	89.0	0.20
6/29/22 12:00 AM	990	700	95.0	28.0	65.0	4.5	80.0	350.0	88.0	ND
6/29/23 12:00 AM	1,000	730	98.0	30.0	70.0	4.5	78.0	350.0	90.0	ND
DVL Weir 4										
3/27/18 10:30 AM	6,000	5,900	340.0	490.0	290.0	30.0	200.0	3,300.0	ND	70.00
8/1/18 9:16 AM	4,000	-	-	-	-	-	-	-	-	-
1/22/19 11:38 AM	5,800	5,800	410.0	540.0	290.0	24.0	160.0	2,500.0	7.6	70.00
12/16/19 10:55 AM	8,600	5,700	400.0	490.0	260.0	29.0	190.0	2,600.0	ND	46.00
11/16/20 8:55 AM	8,100	7,000	460.0	680.0	310.0	30.0	130.0	2,300.0	ND	57.00
6/23/21 9:30 AM	7,100	6,900	420.0	660.0	260.0	27.0	160.0	4,400.0	ND	48.00
12/1/21 12:00 AM	7,200	6,400	360.0	660.0	250.0	27.0	160.0	3,900.0	ND	43.00
6/26/22 12:00 AM	5,200	6,300	420.0	620.0	250.0	30.0	170.0	3,800.0	ND	36.00
6/29/23 12:00 AM	5,800	6,300	410.0	600.0	250.0	30.0	160.0	4,000.0	ND	26.00
DVL Weir 5										
10/27/17 2:10 PM	4,200	3,900	200.0	320.0	160.0	13.0	76.0	2,000.0	ND	38.00
8/1/18 9:07 AM	2,537	-	-	-	-	-	-	-	-	-
1/22/19 11:25 AM	3,200	2,600	200.0	220.0	160.0	11.0	92.0	1,300.0	2.6	21.00
12/16/19 10:50 AM	4,600	2,400	220.0	270.0	150.0	12.0	100.0	1,600.0	ND	23.00
11/16/20 9:10 AM	4,300	4,100	220.0	340.0	160.0	13.0	75.0	1,600.0	ND	27.00
2/23/21 9:20 AM	4,300	3,400	200.0	290.0	160.0	11.0	94.0	2,100.0	ND	22.00
12/1/21 12:00 AM	4,400	3,200	190.0	270.0	150.0	11.0	100.0	2,000.0	ND	20.00
6/29/22 12:00 AM	4,100	3,200	200.0	240.0	150.0	12.0	100.0	2,000.0	ND	18.00
6/29/23 12:00 AM	4,800	5,200	230.0	440.0	170.0	13.0	81.0	3,300.0	ND	22.00
DVL Weir Outfall Channel										
8/1/18 10:05 AM	4,200	3,900	220.0	310.0	190.0	17.0	130.0	2,500.0	ND	38.00
8/1/18 10:18 AM	3,329	-	-	-	-	-	-	-	-	-
1/23/19 9:01 AM	3,560	3,230	225.0	281.0	183.0	13.0	120.0	2,000.0	5.0	29.60
1/23/19 12:39 PM	3,900	3,100	240.0	290.0	180.0	16.0	110.0	1,500.0	7.5	26.00
12/16/19 9:55 AM	4,500	3,600	240.0	280.0	160.0	16.0	110.0	1,500.0	ND	23.00
11/16/20 1:10 PM	2,900	3,400	260.0	410.0	200.0	19.0	100.0	2,400.0	ND	20.00
6/2/21 11:35 AM	2,400	1,700	130.0	98.0	98.0	8.9	92.0	720.0	36.0	6.30
12/1/21 12:00 AM	1,700	1,200	110.0	74.0	87.0	8.0	91.0	660.0	63.0	3.70
6/29/22 12:00 AM	1,900	1,400	110.0	68.0	86.0	8.1	93.0	650.0	45.0	2.90
6/29/23 12:00 AM	160	100	11.0	3.9	10.0	1.5	11.0	13.0	39.0	0.21
San Diego Canal at WCT										
10/27/17 11:20 AM	600	330	34.0	13.0	51.0	3.3	69.0	95.0	100.0	0.23
EMWDRW System at Holland										
10/27/17 3:40 PM	1,300	700	48.0	16.0	150.0	22.0	240.0	130.0	91.0	5.90

Notes:
(1) Historic values of NO3 were converted to Nitrate as N, where applicable
(2) "ND" indicates not detected above minimum testing threshold
(3) The monitoring plan will be transitioning to every 6 months. Future sampling may add locations at the recreation ponds just downstream of the DVL West Dam and other locations at and close to the West Dam to further investigate the occurrence of high nitrates and TDS

TABLE D-12
Santa Margarita River Watershed
Water Quality Data

Surface Streams Sampled by USGS on Cahuilla Creek

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
Cahuilla Creek										
2/28/2005	644	446	41.9	11.2	76.9	10.1	-	-	-	0.2
Cahuilla Creek Below Hwy 371										
2/28/2005	476	337	34.2	10.1	51.9	3.7	36.9	-	-	0.6
Unnamed Tributary to Cahuilla Creek										
2/14/2005	783	529	64.0	17.5	80.7	8.9	35.2	-	-	3.1

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TABLE D-13
Santa Margarita River Watershed
Water Quality Data

Jurisdictional Wells Sampled in Anza Area
(As reported by Riverside County)

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
Hamilton School Dist. Well #1										
7/24/2012	-	-	-	-	-	-	-	-	-	ND
3/5/2013	-	-	-	-	-	-	-	-	-	0.5
2/25/2014	-	-	-	-	-	-	-	-	-	0.7
7/7/2015	-	-	-	-	-	-	-	-	-	ND
12/13/2016	-	-	-	-	-	-	-	-	-	0.3
Hamilton School Dist. Well #2										
7/24/2012	-	-	-	-	-	-	-	-	-	0.9
3/5/2013	-	-	-	-	-	-	-	-	-	0.5
2/25/2014	-	-	-	-	-	-	-	-	-	3.2
7/7/2015	-	-	-	-	-	-	-	-	-	1.7
12/1/2015	-	-	-	-	-	-	-	-	-	3.2
12/13/2016	-	-	-	-	-	-	-	-	-	0.7
Marchant, Cynthia Jean (Valley Auto Center) Well #1										
3/15/2012	-	-	-	-	-	-	-	-	-	9.7
6/20/2012	-	-	-	-	-	-	-	-	-	7.9
9/12/2012	-	-	-	-	-	-	-	-	-	9.7
12/13/2012	-	-	-	-	-	-	-	-	-	10.4
3/13/2013	-	-	-	-	-	-	-	-	-	9.0
6/13/2013	-	-	-	-	-	-	-	-	-	9.7
9/11/2013	-	-	-	-	-	-	-	-	-	12.2
12/11/2013	-	-	-	-	-	-	-	-	-	9.7
3/12/2014	-	-	-	-	-	-	-	-	-	11.1
5/7/2014	-	-	-	-	-	-	-	-	-	3.2
6/11/2014	-	-	-	-	-	-	-	-	-	9.7
9/10/2014	-	-	-	-	-	-	-	-	-	10.6
1/5/2015	-	-	-	-	-	-	-	-	-	3.4
3/4/2015	-	-	-	-	-	-	-	-	-	10.6
6/10/2015	-	-	-	-	-	-	-	-	-	10.4
9/8/2015	-	-	-	-	-	-	-	-	-	11.8
11/10/2015	-	-	-	-	-	-	-	-	-	4.5
12/9/2015	-	-	-	-	-	-	-	-	-	10.9
6/7/2016	-	-	-	-	-	-	-	-	-	11.0
7/12/2016	-	-	-	-	-	-	-	-	-	3.0
9/13/2016	-	-	-	-	-	-	-	-	-	10.0
12/13/2016	-	-	-	-	-	-	-	-	-	10.0
3/14/2017	-	-	-	-	-	-	-	-	-	11.0
8/9/2017	-	-	-	-	-	-	-	-	-	11.0
9/14/2017	-	-	-	-	-	-	-	-	-	9.9
Brenda (La Cocina) Well #1										
12/3/2012	-	-	-	-	-	-	-	-	-	3.8
12/17/2013	-	-	-	-	-	-	-	-	-	3.8
12/29/2014	-	-	-	-	-	-	-	-	-	3.6
12/16/2015	-	-	-	-	-	-	-	-	-	3.8
12/14/2016	-	-	-	-	-	-	-	-	-	3.7
Agostino, Kathleen D (Anza Valley Business Center) Well #1										
6/11/2016	-	-	-	-	-	-	-	-	-	15.0
Griffin, Robert and Bertrand (Country Corners) Well #1										
12/28/2011	-	-	-	-	-	-	-	-	-	4.1
8/16/2012	-	-	-	-	-	-	-	-	-	3.8
10/8/2013	-	-	-	-	-	-	-	-	-	4.5
11/18/2014	-	-	-	-	-	-	-	-	-	4.5

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TABLE D-13
Santa Margarita River Watershed
Water Quality Data

Jurisdictional Wells Sampled in Anza Area
(As reported by Riverside County)

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
12/23/2015	-	-	-	-	-	-	-	-	-	4.8
1/18/2017	-	-	-	-	-	-	-	-	-	4.8
Kathawa, George and Bernadette (Jilberto's Restaurant) Well #1										
5/9/2012	-	-	-	-	-	-	-	-	-	4.8
8/8/2012	-	-	-	-	-	-	-	-	-	3.4
11/8/2012	-	-	-	-	-	-	-	-	-	5.0
2/13/2013	-	-	-	-	-	-	-	-	-	4.5
5/15/2013	-	-	-	-	-	-	-	-	-	4.8
7/17/2013	-	-	-	-	-	-	-	-	-	5.0
11/14/2013	-	-	-	-	-	-	-	-	-	4.8
2/13/2014	-	-	-	-	-	-	-	-	-	5.9
5/8/2014	-	-	-	-	-	-	-	-	-	4.3
8/14/2014	-	-	-	-	-	-	-	-	-	4.8
11/13/2014	-	-	-	-	-	-	-	-	-	5.2
2/18/2015	-	-	-	-	-	-	-	-	-	5.2
5/6/2015	-	-	-	-	-	-	-	-	-	5.0
7/1/2015	-	-	-	-	-	-	-	-	-	4.5
11/4/2015	-	-	-	-	-	-	-	-	-	5.2
2/3/2016	-	-	-	-	-	-	-	-	-	4.5
5/4/2016	-	-	-	-	-	-	-	-	-	4.5
8/3/2016	-	-	-	-	-	-	-	-	-	4.7
11/3/2016	-	-	-	-	-	-	-	-	-	4.6
2/1/2017	-	-	-	-	-	-	-	-	-	5.5
5/3/2017	-	-	-	-	-	-	-	-	-	4.7
8/1/2017	-	-	-	-	-	-	-	-	-	4.7
Anza Mutual Water Company Well #1										
4/23/2008	-	-	-	-	-	-	-	-	-	7.0
7/3/2008	640	390	27.0	15.0	71.0	4.5	80.0	72.0	130.0	ND
12/17/2009	-	-	-	-	-	-	-	-	-	7.5
2/17/2010	-	-	-	-	-	-	-	-	-	6.8
3/15/2010	-	-	-	-	-	-	-	-	-	7.9
8/19/2010	-	-	-	-	-	-	-	-	-	ND
11/18/2010	-	-	-	-	-	-	-	-	-	7.0
5/19/2011	-	-	-	-	-	-	-	-	-	7.9
9/15/2011	850	500	70.0	21.0	76.0	4.6	77.0	100.0	190.0	7.2
11/17/2011	-	-	-	-	-	-	-	-	-	7.0
2/9/2012	-	-	-	-	-	-	-	-	-	8.1
5/9/2012	-	-	-	-	-	-	-	-	-	7.2
8/8/2012	-	-	-	-	-	-	-	-	-	6.8
11/8/2012	-	-	-	-	-	-	-	-	-	7.5
2/13/2013	-	-	-	-	-	-	-	-	-	6.3
5/15/2013	-	-	-	-	-	-	-	-	-	7.5
7/11/2013	-	-	-	-	-	-	-	-	-	7.2
11/14/2013	-	-	-	-	-	-	-	-	-	7.0
2/13/2014	-	-	-	-	-	-	-	-	-	7.2
5/8/2014	-	-	-	-	-	-	-	-	-	8.1
8/14/2014	-	-	-	-	-	-	-	-	-	7.5
11/13/2014	-	-	-	-	-	-	-	-	-	7.2
3/18/2015	-	-	-	-	-	-	-	-	-	7.5
5/6/2015	-	-	-	-	-	-	-	-	-	7.2
7/1/2015	-	-	-	-	-	-	-	-	-	7.7
8/26/2015	-	-	-	-	-	-	-	-	-	7.9
11/4/2015	-	-	-	-	-	-	-	-	-	7.2
2/3/2016	-	-	-	-	-	-	-	-	-	7.3
5/4/2016	-	-	-	-	-	-	-	-	-	7.3
8/3/2016	-	-	-	-	-	-	-	-	-	8.0
11/1/2016	-	-	-	-	-	-	-	-	-	7.1
2/1/2017	-	-	-	-	-	-	-	-	-	8.1
5/3/2017	-	-	-	-	-	-	-	-	-	7.7
8/1/2017	-	-	-	-	-	-	-	-	-	8.1

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TABLE D-13
Santa Margarita River Watershed
Water Quality Data

Jurisdictional Wells Sampled in Anza Area
(As reported by Riverside County)

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
Anza Mutual Water Company Well #2										
5/19/2011	-	-	-	-	-	-	-	-	-	7.9
9/15/2011	900	540	70.0	15.0	97.0	4.2	100.0	87.0	190.0	9.3
11/16/2011	730	440	66.0	13.0	61.0	3.8	63.0	86.0	170.0	8.1
11/17/2011	-	-	-	-	-	-	-	-	-	8.4
5/9/2012	-	-	-	-	-	-	-	-	-	8.4
8/8/2012	-	-	-	-	-	-	-	-	-	7.0
11/8/2012	-	-	-	-	-	-	-	-	-	8.4
2/13/2013	-	-	-	-	-	-	-	-	-	6.6
5/15/2013	-	-	-	-	-	-	-	-	-	7.9
7/11/2013	-	-	-	-	-	-	-	-	-	8.6
11/14/2013	-	-	-	-	-	-	-	-	-	7.0
2/13/2014	-	-	-	-	-	-	-	-	-	7.5
5/8/2014	-	-	-	-	-	-	-	-	-	9.5
6/12/2014	-	-	-	-	-	-	-	-	-	9.0
7/10/2014	-	-	-	-	-	-	-	-	-	9.0
8/14/2014	-	-	-	-	-	-	-	-	-	9.0
9/11/2014	-	-	-	-	-	-	-	-	-	9.3
10/9/2014	-	-	-	-	-	-	-	-	-	8.8
11/13/2014	-	-	-	-	-	-	-	-	-	7.9
12/10/2014	-	-	-	-	-	-	-	-	-	7.2
1/8/2015	-	-	-	-	-	-	-	-	-	6.8
3/18/2015	-	-	-	-	-	-	-	-	-	8.4
5/6/2015	-	-	-	-	-	-	-	-	-	8.6
7/1/2015	-	-	-	-	-	-	-	-	-	9.0
8/26/2015	740	490	71.0	15.0	61.0	3.5	59.0	92.0	200.0	9.3
11/4/2015	-	-	-	-	-	-	-	-	-	8.1
2/3/2016	-	-	-	-	-	-	-	-	-	7.4
5/4/2016	-	-	-	-	-	-	-	-	-	8.2
8/3/2016	-	-	-	-	-	-	-	-	-	8.8
11/1/2016	-	-	-	-	-	-	-	-	-	8.0
2/1/2017	-	-	-	-	-	-	-	-	-	8.2
5/3/2017	-	-	-	-	-	-	-	-	-	8.7
8/1/2017	-	-	-	-	-	-	-	-	-	9.4
R J Mission Plaza (Anza Petroleum) Well #1										
2/8/2012	-	-	-	-	-	-	-	-	-	6.6
5/9/2012	-	-	-	-	-	-	-	-	-	6.6
8/8/2012	-	-	-	-	-	-	-	-	-	6.1
11/8/2012	-	-	-	-	-	-	-	-	-	7.0
2/13/2013	-	-	-	-	-	-	-	-	-	6.1
5/15/2013	-	-	-	-	-	-	-	-	-	6.1
7/11/2013	-	-	-	-	-	-	-	-	-	6.8
11/14/2013	-	-	-	-	-	-	-	-	-	6.6
2/13/2014	-	-	-	-	-	-	-	-	-	6.3
5/8/2014	-	-	-	-	-	-	-	-	-	6.6
8/14/2014	-	-	-	-	-	-	-	-	-	6.3
11/13/2014	-	-	-	-	-	-	-	-	-	6.6
2/25/2015	-	-	-	-	-	-	-	-	-	6.3
5/6/2015	-	-	-	-	-	-	-	-	-	6.6
7/1/2015	-	-	-	-	-	-	-	-	-	6.6
11/4/2015	-	-	-	-	-	-	-	-	-	6.8
12/9/2015	-	-	-	-	-	-	-	-	-	6.8
5/4/2016	-	-	-	-	-	-	-	-	-	7.2
11/2/2016	-	-	-	-	-	-	-	-	-	6.9
11/14/2016	-	-	-	-	-	-	-	-	-	6.9
2/1/2017	-	-	-	-	-	-	-	-	-	7.4
5/3/2017	-	-	-	-	-	-	-	-	-	7.2
8/1/2017	-	-	-	-	-	-	-	-	-	7.2
La Plata Enterprises Inc Well #1										
3/15/2012	-	-	-	-	-	-	-	-	-	ND
1/18/2015	-	-	-	-	-	-	-	-	-	ND

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Santa Margarita River Watershed
Water Quality Data

Jurisdictional Wells Sampled in Anza Area
(As reported by Riverside County)

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
1/12/2016	-	-	-	-	-	-	-	-	-	0.7
9/13/2016	-	-	-	-	-	-	-	-	-	1.5
Georges, John (Diner 371) Well #2										
2/13/2013	-	-	-	-	-	-	-	-	-	ND
2/13/2014	-	-	-	-	-	-	-	-	-	ND
2/10/2016	-	-	-	-	-	-	-	-	-	ND
Anza First Southern Baptist Church Well #1										
4/18/2012	-	-	-	-	-	-	-	-	-	17.9
10/17/2012	-	-	-	-	-	-	-	-	-	17.6
4/17/2013	-	-	-	-	-	-	-	-	-	19.2
10/16/2013	-	-	-	-	-	-	-	-	-	16.1
1/15/2014	-	-	-	-	-	-	-	-	-	15.8
6/18/2014	-	-	-	-	-	-	-	-	-	16.7
7/20/2014	-	-	-	-	-	-	-	-	-	19.5
10/9/2014	-	-	-	-	-	-	-	-	-	17.9
1/5/2015	-	-	-	-	-	-	-	-	-	18.8
4/7/2015	-	-	-	-	-	-	-	-	-	19.2
7/7/2015	-	-	-	-	-	-	-	-	-	18.1
10/20/2015	-	-	-	-	-	-	-	-	-	19.2
4/12/2016	-	-	-	-	-	-	-	-	-	22.0
7/13/2016	-	-	-	-	-	-	-	-	-	22.0
10/11/2016	-	-	-	-	-	-	-	-	-	19.0
1/17/2017	-	-	-	-	-	-	-	-	-	16.0
4/11/2017	-	-	-	-	-	-	-	-	-	22.0
7/11/2017	-	-	-	-	-	-	-	-	-	21.0
Ramona Water Company Patterson Well										
12/20/2012	-	-	-	-	-	-	-	-	-	4.5
2/13/2013	-	-	-	-	-	-	-	-	-	4.1
2/13/2014	-	-	-	-	-	-	-	-	-	4.1
12/11/2014	-	-	-	-	-	-	-	-	-	4.3
3/7/2017	380	270	35.0	7.1	22.0	11.0	30.0	4.9	150.0	4.5
Company Well #1 Ranch (Inactive)										
12/13/2016	-	-	-	-	-	-	-	-	-	4.3
5/30/2017	-	-	-	-	-	-	-	-	-	0.5
Ramona Water Company Well #2 Red Shank										
3/30/2009	-	-	-	-	-	-	-	-	-	8.6
6/22/2009	-	-	-	-	-	-	-	-	-	8.4
9/28/2009	-	-	-	-	-	-	-	-	-	9.3
11/19/2009	-	-	-	-	-	-	-	-	-	8.6
12/14/2009	-	-	-	-	-	-	-	-	-	8.6
6/17/2010	-	-	-	-	-	-	-	-	-	8.1
8/19/2010	-	-	-	-	-	-	-	-	-	10.0
9/20/2010	-	-	-	-	-	-	-	-	-	10.6
9/23/2010	-	-	-	-	-	-	-	-	-	8.6
2/17/2011	-	-	-	-	-	-	-	-	-	9.3
5/18/2011	580	ND	57.0	13.0	42.0	8.2	48.0	11.0	210.0	9.3
6/28/2011	-	-	-	-	-	-	-	-	-	9.7
11/17/2011	-	-	-	-	-	-	-	-	-	9.3
2/8/2012	-	-	-	-	-	-	-	-	-	10.0
4/11/2012	-	-	-	-	-	-	-	-	-	9.5
8/8/2012	-	-	-	-	-	-	-	-	-	10.6
11/8/2012	-	-	-	-	-	-	-	-	-	11.8
2/13/2013	-	-	-	-	-	-	-	-	-	11.1

NOTES:
(1) Historic values of NO3 were converted to Nitrate as N
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TABLE D-13
Santa Margarita River Watershed
Water Quality Data

Jurisdictional Wells Sampled in Anza Area
(As reported by Riverside County)

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
5/15/2013	-	-	-	-	-	-	-	-	-	10.9
9/6/2013	-	-	-	-	-	-	-	-	-	11.1
11/14/2013	-	-	-	-	-	-	-	-	-	11.5
2/13/2014	-	-	-	-	-	-	-	-	-	11.1
5/8/2014	-	-	-	-	-	-	-	-	-	12.0
6/12/2014	-	-	-	-	-	-	-	-	-	11.3
8/14/2014	-	-	-	-	-	-	-	-	-	11.1
12/11/2014	-	-	-	-	-	-	-	-	-	10.9
4/8/2015	-	-	-	-	-	-	-	-	-	9.5
6/24/2015	-	-	-	-	-	-	-	-	-	10.9
1/12/2016	-	-	-	-	-	-	-	-	-	10.0
2/9/2016	-	-	-	-	-	-	-	-	-	12.0
12/13/2016	-	-	-	-	-	-	-	-	-	12.0
4/12/2017	-	-	-	-	-	-	-	-	-	11.0
Ramona Water Company Well #3 Burnt Valley										
3/30/2009	-	-	-	-	-	-	-	-	-	1.5
12/14/2009	-	-	-	-	-	-	-	-	-	1.1
2/17/2011	-	-	-	-	-	-	-	-	-	1.7
5/18/2011	600	-	57.0	17.0	35.0	11.0	61.0	12.0	240.0	1.3
4/11/2012	-	-	-	-	-	-	-	-	-	1.8
10/20/2015	-	-	-	-	-	-	-	-	-	1.5
2/8/2017	590	330	50.0	19.0	38.0	11.0	57.0	10.0	240.0	1.8
Ramona Water Company Well #4 Reynolds										
3/30/2009	-	-	-	-	-	-	-	-	-	4.5
6/22/2009	-	-	-	-	-	-	-	-	-	8.4
9/28/2009	-	-	-	-	-	-	-	-	-	5.4
11/19/2009	-	-	-	-	-	-	-	-	-	5.0
12/14/2009	-	-	-	-	-	-	-	-	-	4.8
7/15/2010	-	-	-	-	-	-	-	-	-	6.6
8/19/2010	-	-	-	-	-	-	-	-	-	5.4
5/18/2011	510	-	47.0	11.0	39.0	10.0	39.0	9.4	200.0	7.2
6/28/2011	-	-	-	-	-	-	-	-	-	6.1
11/17/2011	-	-	-	-	-	-	-	-	-	6.1
2/8/2012	-	-	-	-	-	-	-	-	-	7.5
4/11/2012	-	-	-	-	-	-	-	-	-	5.7
8/8/2012	-	-	-	-	-	-	-	-	-	5.9
11/8/2012	-	-	-	-	-	-	-	-	-	6.8
2/13/2013	-	-	-	-	-	-	-	-	-	6.1
5/15/2013	-	-	-	-	-	-	-	-	-	7.2
9/6/2013	-	-	-	-	-	-	-	-	-	6.3
11/14/2013	-	-	-	-	-	-	-	-	-	9.5
9/11/2014	-	-	-	-	-	-	-	-	-	10.2
9/17/2014	-	-	-	-	-	-	-	-	-	9.5
12/11/2014	-	-	-	-	-	-	-	-	-	7.0
4/8/2015	-	-	-	-	-	-	-	-	-	9.0
12/13/2016	-	-	-	-	-	-	-	-	-	9.1
2/8/2017	570	350	47.0	12.0	42.0	11.0	36.0	11.0	220.0	10.0
Ramona Water Company Well #5 Everett										
3/30/2009	-	-	-	-	-	-	-	-	-	14.0
9/28/2009	-	-	-	-	-	-	-	-	-	11.1
11/19/2009	-	-	-	-	-	-	-	-	-	12.9
12/14/2009	-	-	-	-	-	-	-	-	-	12.7
3/15/2010	-	-	-	-	-	-	-	-	-	13.6
6/17/2010	-	-	-	-	-	-	-	-	-	12.4
8/27/2010	-	-	-	-	-	-	-	-	-	12.7
2/17/2011	-	-	-	-	-	-	-	-	-	13.1
2/18/2011	-	-	-	-	-	-	-	-	-	13.3

NOTES:
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TABLE D-13
Santa Margarita River Watershed
Water Quality Data

Jurisdictional Wells Sampled in Anza Area
(As reported by Riverside County)

Well and Date	Specific Conductance (umho/cm)	Total Dissolved Solids (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	K (mg/l)	Cl (mg/l)	SO4 (mg/l)	HCO3 (mg/l)	Nitrate as N (mg/l)
5/18/2011	660	-	64.0	12.0	52.0	8.2	48.0	12.0	260.0	11.3
6/28/2011	-	-	-	-	-	-	-	-	-	13.1
11/17/2011	-	-	-	-	-	-	-	-	-	13.3
2/8/2012	-	-	-	-	-	-	-	-	-	12.7
4/11/2012	-	-	-	-	-	-	-	-	-	12.2
8/8/2012	-	-	-	-	-	-	-	-	-	12.9
11/8/2012	-	-	-	-	-	-	-	-	-	14.9
2/13/2013	-	-	-	-	-	-	-	-	-	12.7
5/15/2013	-	-	-	-	-	-	-	-	-	11.3
9/6/2013	-	-	-	-	-	-	-	-	-	7.9
11/14/2013	-	-	-	-	-	-	-	-	-	8.6
2/13/2014	-	-	-	-	-	-	-	-	-	8.6
5/8/2014	-	-	-	-	-	-	-	-	-	7.7
7/10/2014	-	-	-	-	-	-	-	-	-	6.6
8/14/2014	-	-	-	-	-	-	-	-	-	6.8
12/11/2014	-	-	-	-	-	-	-	-	-	6.8
7/22/2015	-	-	-	-	-	-	-	-	-	9.5
4/12/2017	-	-	-	-	-	-	-	-	-	12.0
Ramona Water Company Well #6 End Everett Road										
3/30/2009	-	-	-	-	-	-	-	-	-	5.2
12/14/2009	-	-	-	-	-	-	-	-	-	3.6
2/17/2011	-	-	-	-	-	-	-	-	-	4.3
5/18/2011	390	-	42.0	9.0	22.0	10.0	29.0	5.6	160.0	4.3
4/11/2012	-	-	-	-	-	-	-	-	-	4.1
1/12/2016	-	-	-	-	-	-	-	-	-	2.7
Ramona Water Company Well #7 Anzanita										
3/30/2009	-	-	-	-	-	-	-	-	-	3.6
11/19/2009	-	-	-	-	-	-	-	-	-	3.4
8/27/2010	-	-	-	-	-	-	-	-	-	6.8
2/16/2011	-	-	-	-	-	-	-	-	-	4.8
5/18/2011	550	-	50.0	9.2	50.0	8.8	39.0	9.2	240.0	5.4
7/6/2011	-	-	-	-	-	-	-	-	-	7.2
11/18/2011	-	-	-	-	-	-	-	-	-	6.1
2/8/2012	-	-	-	-	-	-	-	-	-	5.4
4/13/2012	-	-	-	-	-	-	-	-	-	5.9
8/8/2012	-	-	-	-	-	-	-	-	-	7.5
9/30/2012	-	-	-	-	-	-	-	-	-	6.8
11/8/2012	-	-	-	-	-	-	-	-	-	8.8
2/13/2013	-	-	-	-	-	-	-	-	-	3.2
5/15/2013	-	-	-	-	-	-	-	-	-	6.3
9/6/2013	-	-	-	-	-	-	-	-	-	9.3
11/14/2013	-	-	-	-	-	-	-	-	-	5.9
2/13/2014	-	-	-	-	-	-	-	-	-	5.4
5/8/2014	-	-	-	-	-	-	-	-	-	5.7
8/14/2014	-	-	-	-	-	-	-	-	-	5.9

NOTES:
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SANTA MARGARITA RIVER WATERSHED

ANNUAL WATERMASTER REPORT

WATER YEAR 2022-23

APPENDIX E

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

REQUIRED FLOWS AND ACCOUNTS

CALENDAR YEAR 2023

JULY 2025

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

JANUARY 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge /2		Climatic Credit Earned		Input /3	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	542.	542.				0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
2	49.7	49.7				0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
3	78.9	78.9				0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
4	104.	104.				0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
5	462.	462.				0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
6	138.	138.				0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
7	28.2	28.2				0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
8	14.3	14.3				0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
9	7.88	7.88				0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
10	359.	359.				0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
11	127.	127.	136.9	9.1	127.8	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
12	28.3	28.3	134.8	9.1	125.7	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
13	13.1	13.1	128.2	9.1	119.1	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
14	534.	534.	171.2	9.1	162.1	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
15	862.	862.	211.2	9.1	202.1	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
16	1,860.	1,810.	378.4	9.1	369.3	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
17	222.	229.	398.5	9.1	389.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
18	61.8	64.8	403.5	9.1	394.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
19	38.2	40.2	406.7	9.1	397.6	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
20	50.8	53.2	376.2	9.1	367.1	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
21	18.4	19.5	365.4	9.1	356.3	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
22	13.0	13.9	364.0	9.1	354.9	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
23	9.94	10.7	363.7	9.1	354.6	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
24	7.22	7.87	311.1	9.1	302.0	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
25	5.84	6.41	225.6	9.1	216.5	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
26	5.84	6.41	45.2	9.1	36.1	0.9	1.7	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
27	5.20	5.73	22.9	9.1	13.8	1.7	3.3	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
28	4.17	4.63	16.9	9.1	7.8	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
29	5.61	6.16	13.5	9.1	4.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
30	15.3	16.3	9.8	9.1	0.7	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
31	13.1	14.0	9.2	9.1	0.1	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
TOTAL SFD	5,684.8	5,657.2	4,492.9	191.1	4,301.8	2.6		0.0		390.6		0.0		
TOTAL AF	11,275.6	11,220.9	8,911.5	379.0	8,532.5		5.0		0.0		775.0		0.0	5,000.0

1 - Required flows for January through April are equal to 9.1 cfs: 11.5 cfs less 2.4 cfs of credits. Due to maintenance on the MWD delivery pipeline, RCWD limited releases through March 2023.

2 - Make-up discharge from January 1st through March 10th was released from the District's potable water system rather than from WR-34.

3 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

FEBRUARY 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge /2		Climatic Credit Earned		Input /3	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	7.87	8.54	8.7	9.1	-0.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
2	4.22	4.69	8.1	9.1	-1.0	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
3	2.99	3.38	7.6	9.1	-1.5	0.1	0.1	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
4	2.60	2.95	7.3	9.1	-1.8	0.8	1.5	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
5	2.77	3.13	7.0	9.1	-2.1	1.0	2.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
6	3.33	3.74	6.8	9.1	-2.3	2.1	4.1	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
7	2.59	2.94	6.6	9.1	-2.5	1.5	3.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
8	2.62	2.98	6.3	9.1	-2.8	2.0	4.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
9	2.72	2.72	4.9	9.1	-4.2	2.3	4.5	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
10	2.95	2.95	3.8	9.1	-5.3	2.5	5.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
11	2.94	2.94	3.2	9.1	-5.9	2.5	5.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
12	2.96	2.96	3.1	9.1	-6.0	2.6	5.1	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
13	2.93	2.93	3.0	9.1	-6.1	2.5	4.9	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
14	3.36	3.36	3.1	9.1	-6.0	2.1	4.1	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
15	3.64	3.64	3.1	9.1	-6.0	0.3	0.6	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
16	2.96	2.96	3.0	9.1	-6.1	1.6	3.2	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
17	3.00	3.00	3.0	9.1	-6.1	1.9	3.8	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
18	2.95	2.96	3.0	9.1	-6.1	2.1	4.2	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
19	2.93	2.93	3.1	9.1	-6.0	2.4	4.7	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
20	2.91	2.91	3.1	9.1	-6.0	2.6	5.1	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
21	2.94	2.94	3.1	9.1	-6.0	2.5	4.9	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
22	2.94	2.94	3.1	9.1	-6.0	1.7	3.4	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
23	47.8	47.8	7.5	9.1	-1.6	0.4	0.7	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
24	46.3	46.3	11.8	9.1	2.7	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
25	1,040.	1,000.	111.5	9.1	102.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
26	426.	426.	153.8	9.1	144.7	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
27	69.0	69.0	160.4	9.1	151.3	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
28	90.2	90.2	169.1	9.1	160.0	0.1	0.2	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
TOTAL SFD	1,790.4	1,753.8	718.1	254.8	463.3	37.6		0.0		352.8		0.0		
TOTAL AF	3,551.2	3,478.6	1,424.3	505.4	918.9		74.1		0.0		700.0		0.0	5,000.0

1 - Required flows for January through April are equal to 9.1 cfs: 11.5 cfs less 2.4 cfs of credits. Due to maintenance on the MWD delivery pipeline, RCWD limited releases through March 2023.
2 - Make-up discharge from January 1st through March 10th was released from the District's potable water system rather than from WR-34.
3 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

MARCH 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge /2		Climatic Credit Earned		Input /3	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	996.	996.	268.4	9.1	259.3	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
2	170.	170.	285.1	9.1	276.0	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
3	49.6	49.6	289.8	9.1	280.7	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
4	31.2	31.2	292.6	9.1	283.5	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
5	22.4	22.4	290.1	9.1	281.0	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
6	17.6	17.6	287.2	9.1	278.1	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
7	15.1	15.1	188.7	9.1	179.6	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
8	13.6	13.6	147.5	9.1	138.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
9	10.8	10.8	141.7	9.1	132.6	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
10	61.9	61.9	138.8	9.1	129.7	0.4	0.8	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
11	75.4	75.4	46.8	9.1	37.7	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
12	27.0	27.0	32.5	9.1	23.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
13	18.2	18.2	29.3	9.1	20.2	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
14	17.8	17.8	28.0	9.1	18.9	0.5	0.9	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
15	1,250.	1,250.	150.7	9.1	141.6	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
16	204.	204.	169.4	9.1	160.3	0.2	0.3	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
17	66.0	66.0	174.5	9.1	165.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
18	37.9	37.9	176.9	9.1	167.8	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
19	27.4	27.4	178.6	9.1	169.5	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
20	33.9	33.9	175.8	9.1	166.7	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
21	1,790.	1,650.	333.2	9.1	324.1	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
22	1,170.	1,170.	447.5	9.1	438.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
23	277.	277.	473.4	9.1	464.3	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
24	111.	111.	482.7	9.1	473.6	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
25	60.5	60.5	363.8	9.1	354.7	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
26	43.2	43.2	347.7	9.1	338.6	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
27	35.2	35.2	344.6	9.1	335.5	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
28	28.8	28.8	343.7	9.1	334.6	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
29	36.8	36.8	344.6	9.1	335.5	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
30	162.	162.	357.5	9.1	348.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
31	80.0	80.4	200.5	9.1	191.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
TOTAL SFD	6,940.3	6,800.7	7,531.6	282.1	7,249.5	1.1		0.0		390.6		0.0		
TOTAL AF	13,765.9	13,489.0	14,938.7	559.5	14,379.2		2.0		0.0		775.0		0.0	5,000.0

1 - Required flows for January through April are equal to 9.1 cfs: 11.5 cfs less 2.4 cfs of credits. Due to maintenance on the MWD delivery pipeline, RCWD limited releases through March 2023.
2 - Make-up discharge from January 1st through March 10th was released from the District's potable water system rather than from WR-34.
3 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

APRIL 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input /2	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	32.3	32.9	86.8	9.1	77.7	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
2	23.7	24.4	61.5	9.1	52.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
3	21.1	22.0	52.6	9.1	43.5	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
4	18.0	18.9	48.5	9.1	39.4	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
5	15.1	16.1	45.8	9.1	36.7	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
6	13.3	13.3	43.6	9.1	34.5	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
7	11.8	11.8	41.9	9.1	32.8	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
8	10.4	10.4	39.2	9.1	30.1	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
9	9.45	9.45	24.0	9.1	14.9	0.0	0.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
10	9.42	9.42	16.9	9.1	7.8	1.0	1.9	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
11	10.8	10.8	14.7	9.1	5.6	2.8	5.6	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
12	10.1	10.1	13.2	9.1	4.1	3.1	6.1	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
13	11.2	11.2	12.1	9.1	3.0	3.0	6.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
14	10.0	10.0	11.3	9.1	2.2	3.0	6.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
15	9.48	9.48	10.6	9.1	1.5	3.1	6.1	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
16	8.15	8.15	10.1	9.1	1.0	3.1	6.1	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
17	7.98	7.98	9.7	9.1	0.6	3.1	6.1	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
18	7.82	7.82	9.4	9.1	0.3	3.1	6.1	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
19	8.34	8.34	9.3	9.1	0.2	4.0	8.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
20	9.64	9.64	9.4	9.1	0.3	4.8	9.6	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
21	9.41	9.41	9.2	9.1	0.1	3.9	7.7	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
22	9.00	9.00	9.1	9.1	0.0	6.8	13.5	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
23	9.10	9.10	8.9	9.1	-0.2	7.4	14.6	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
24	9.01	9.01	8.8	9.1	-0.3	7.8	15.5	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
25	9.00	9.00	8.7	9.1	-0.4	7.7	15.3	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
26	9.08	9.08	8.8	9.1	-0.3	7.8	15.5	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
27	9.04	9.04	8.9	9.1	-0.2	8.0	15.9	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
28	9.02	9.02	9.1	9.1	0.0	7.9	15.7	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
29	9.00	9.00	9.1	9.1	0.0	8.5	16.9	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
30	9.01	9.01	9.1	9.1	0.0	9.1	18.0	0.0	0.0	12.6	25.0	0.0	0.0	5,000.0
TOTAL SFD	348.8	352.9	660.3	273.0	387.3	109.0		0.0		378.0		0.0		
TOTAL AF	691.7	699.9	1,309.7	541.5	768.2		216.2		0.0		750.0		0.0	5,000.0

1 - Required flows for January through April are equal to 9.1 cfs: 11.5 cfs less 2.4 cfs of credits.
2 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

MAY 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge /1	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /2	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input /3	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	9.92	9.92				9.7	19.3	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
2	11.3	11.3				11.3	22.4	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
3	11.3	11.3				11.4	22.6	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
4	211.	199.				3.6	7.1	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
5	48.7	41.4				0.0	0.0	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
6	16.8	13.9				1.0	2.0	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
7	13.8	12.4				5.9	11.8	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
8	13.3	11.9				8.8	17.4	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
9	13.2	11.9				9.6	19.1	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
10	12.2	10.9				8.8	17.4	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
11	6.61	5.75	33.0	11.5	21.5	3.9	7.7	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
12	5.70	4.91	32.3	11.5	20.8	3.0	6.0	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
13	5.34	5.75	31.8	11.5	20.3	3.0	6.0	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
14	5.03	4.30	12.3	11.5	0.8	3.0	6.0	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
15	9.91	8.84	9.1	11.5	-2.4	6.2	12.3	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
16	14.9	13.5	9.0	11.5	-2.5	10.1	20.0	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
17	14.4	13.0	9.1	11.5	-2.4	10.3	20.5	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
18	12.6	11.3	9.0	11.5	-2.5	11.5	22.8	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
19	12.5	11.2	8.9	11.5	-2.6	11.5	22.8	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
20	12.5	11.2	9.0	11.5	-2.5	11.5	22.8	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
21	12.3	11.0	9.5	11.5	-2.0	11.5	22.8	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
22	12.0	10.7	10.1	11.5	-1.4	11.5	22.8	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
23	11.8	10.5	10.6	11.5	-0.9	11.2	22.3	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
24	7.63	6.72	10.8	11.5	-0.7	7.4	14.7	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
25	7.41	6.52	10.6	11.5	-0.9	6.7	13.2	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
26	11.4	10.2	10.2	11.5	-1.3	11.0	21.9	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
27	11.4	10.2	10.0	11.5	-1.5	11.0	21.9	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
28	11.5	10.3	9.9	11.5	-1.6	11.0	21.8	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
29	11.4	10.2	9.8	11.5	-1.7	11.0	21.9	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
30	11.4	10.2	9.7	11.5	-1.8	11.2	22.2	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
31	11.5	10.3	9.6	11.5	-1.9	11.3	22.5	0.0	0.0	4.2	8.3	0.0	0.0	5,000.0
TOTAL SFD	580.8	530.5	274.3	241.5	32.8	258.9		0.0		130.2		0.0		
TOTAL AF	1,151.9	1,052.3	544.1	479.0	65.1		514.0		0.0		257.3		0.0	5,000.0

1 - The USGS gage had issues with seepage and unintentional bypasses from May through December 2023, resulting in inaccurate daily discharge measurements.
2 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Very Wet year.
3 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

JUNE 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge /1	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /2	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input /3	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	11.4	10.3				11.2	22.3	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
2	11.5	10.3				11.3	22.4	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
3	11.5	10.3				11.2	22.3	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
4	11.4	10.5				11.2	22.3	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
5	11.4	10.2				11.4	22.7	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
6	11.4	10.1				11.4	22.6	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
7	11.3	10.1				11.4	22.7	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
8	11.4	9.00				11.5	22.8	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
9	11.4	9.01				11.5	22.8	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
10	11.5	9.12				11.5	22.8	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
11	11.5	9.09	9.8	11.5	-1.7	11.3	22.5	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
12	11.7	9.19	9.7	11.5	-1.8	11.5	22.8	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
13	11.6	9.16	9.5	11.5	-2.0	11.5	22.8	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
14	11.9	9.35	9.4	11.5	-2.1	11.5	22.9	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
15	11.9	9.39	9.4	11.5	-2.1	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
16	11.7	9.19	9.3	11.5	-2.2	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
17	11.7	9.17	9.2	11.5	-2.3	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
18	11.8	9.27	9.2	11.5	-2.3	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
19	12.0	9.35	9.2	11.5	-2.3	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
20	11.6	9.09	9.2	11.5	-2.3	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
21	11.4	8.87	9.2	11.5	-2.3	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
22	11.5	8.92	9.2	11.5	-2.3	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
23	11.4	8.82	9.1	11.5	-2.4	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
24	11.5	8.84	9.1	11.5	-2.4	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
25	11.6	11.6	9.3	11.5	-2.2	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
26	11.5	11.5	9.5	11.5	-2.0	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
27	11.5	11.5	9.8	11.5	-1.7	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
28	11.5	11.5	10.0	11.5	-1.5	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
29	11.5	11.5	10.2	11.5	-1.3	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
30	11.5	11.5	10.5	11.5	-1.0	11.6	23.0	0.0	0.0	0.7	1.4	0.0	0.0	5,000.0
TOTAL SFD	346.5	295.7	189.8	230.0	-40.2	345.0		0.0		21.0		0.0		
TOTAL AF	687.3	586.6	376.5	456.2	-79.7		684.7		0.0		42.0		0.0	5,000.0

1 - The USGS gage had issues with seepage and unintentional bypasses from May through December 2023, resulting in inaccurate daily discharge measurements.
2 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Very Wet year.
3 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

JULY 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge /1	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /2	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	9.90	9.86				10.1	20.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	9.64	9.59				9.8	19.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	9.68	9.61				10.0	19.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	9.68	9.59				10.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	9.73	9.62				10.1	20.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	9.75	9.62				10.1	20.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	9.77	9.63				10.1	20.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	9.77	9.61				10.1	20.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	9.78	9.61				10.1	20.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	9.80	9.61				10.2	20.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	9.67	9.46	9.6	9.7	-0.1	10.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	9.82	9.59	9.6	9.7	-0.1	10.3	20.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	9.88	9.64	9.6	9.7	-0.1	10.3	20.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	9.89	9.63	9.6	9.7	-0.1	10.4	20.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	9.89	9.61	9.6	9.7	-0.1	10.4	20.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	9.90	9.60	9.6	9.7	-0.1	10.3	20.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	9.93	9.61	9.6	9.7	-0.1	10.3	20.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	9.96	9.63	9.6	9.7	-0.1	10.4	20.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	9.97	9.61	9.6	9.7	-0.1	10.3	20.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	10.0	9.63	9.6	9.7	-0.1	10.4	20.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	10.0	9.62	9.6	9.7	-0.1	10.4	20.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	10.0	9.62	9.6	9.7	-0.1	10.2	20.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	10.0	9.61	9.6	9.7	-0.1	10.3	20.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	9.66	9.24	9.6	9.7	-0.1	9.8	19.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	6.48	6.14	9.2	9.7	-0.5	7.1	14.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	8.06	7.65	9.0	9.7	-0.7	8.0	15.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	10.2	9.67	9.0	9.7	-0.7	10.5	20.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	10.1	9.61	9.0	9.7	-0.7	10.4	20.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	10.2	9.63	9.0	9.7	-0.7	10.6	21.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	10.2	9.61	9.0	9.7	-0.7	10.4	20.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
31	10.2	9.66	9.0	9.7	-0.7	10.5	20.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	301.5	292.4	197.6	203.7	-6.1	311.9		0.0		0.0		0.0		
TOTAL AF	598.0	580.0	391.9	404.0	-12.1		619.1		0.0		0.0		0.0	5,000.0

1 - The USGS gage had issues with seepage and unintentional bypasses from May through December 2023, resulting in inaccurate daily discharge measurements.
2 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Very Wet year.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

AUGUST 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge /1	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /2	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	9.03	8.49				9.2	18.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	9.76	9.17				9.9	19.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	9.80	9.19				9.9	19.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	9.80	9.18				9.9	19.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	9.82	9.17				9.9	19.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	9.83	9.17				9.9	19.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	9.85	9.17				10.0	19.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	9.98	9.28				10.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	9.89	9.17				10.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	9.89	9.16				9.9	19.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	9.50	9.21	9.2	9.2	0.0	9.5	18.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	9.17	9.17	9.2	9.2	0.0	9.2	18.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	9.17	9.17	9.2	9.2	0.0	9.2	18.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	9.16	91.6	17.4	9.2	8.2	9.1	18.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	9.16	9.16	17.4	9.2	8.2	9.2	18.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	9.19	9.16	17.4	9.2	8.2	9.2	18.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	9.18	9.18	17.4	9.2	8.2	9.2	18.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	9.17	9.17	17.4	9.2	8.2	9.2	18.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	9.18	9.18	17.4	9.2	8.2	9.3	18.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	586.	537.	70.2	9.2	61.0	4.8	9.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	590.	497.	119.0	9.2	109.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	48.7	38.1	121.9	9.2	112.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	14.0	13.6	122.3	9.2	113.1	1.6	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	6.66	6.66	113.8	9.2	104.6	3.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	4.30	4.30	113.3	9.2	104.1	3.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	3.87	3.87	112.8	9.2	103.6	3.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	3.70	3.70	112.3	9.2	103.1	3.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	3.55	3.55	111.7	9.2	102.5	3.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	3.52	3.52	111.1	9.2	101.9	3.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	3.39	3.39	57.8	9.2	48.6	3.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
31	3.33	3.33	8.4	9.2	-0.8	3.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	1,451.6	1,374.2	1,306.6	193.2	1,113.4	212.1		0.0		0.0		0.0		
TOTAL AF	2,879.1	2,725.6	2,591.6	383.2	2,208.4		421.5		0.0		0.0		0.0	5,000.0

1 - The USGS gage had issues with seepage and unintentional bypasses from May through December 2023, resulting in inaccurate daily discharge measurements.
2 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Very Wet year.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

SEPTEMBER 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge /1	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /2	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	10.2	10.2				6.5	12.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	9.41	9.41				6.6	13.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	9.33	9.33				8.6	17.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	9.31	9.31				8.7	17.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	9.35	9.35				8.8	17.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	9.37	9.37				8.8	17.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	9.34	9.34				8.8	17.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	9.34	9.34				8.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	9.38	9.38				9.0	17.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	9.39	9.39				9.0	17.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	9.37	9.37	9.4	9.4	0.0	9.0	17.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	9.35	9.35	9.4	9.4	0.0	8.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	9.33	9.33	9.4	9.4	0.0	8.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	9.36	9.36	9.4	9.4	0.0	8.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	9.34	9.34	9.4	9.4	0.0	8.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	9.45	9.45	9.4	9.4	0.0	8.9	17.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	9.52	9.52	9.4	9.4	0.0	8.8	17.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	9.40	9.40	9.4	9.4	0.0	8.8	17.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	9.38	9.38	9.4	9.4	0.0	8.8	17.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	9.29	9.29	9.4	9.4	0.0	8.8	17.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	9.32	9.32	9.4	9.4	0.0	8.8	17.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	9.30	9.30	9.4	9.4	0.0	8.8	17.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	9.31	9.31	9.4	9.4	0.0	8.8	17.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	9.31	9.31	9.4	9.4	0.0	8.8	17.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	9.31	9.35	9.4	9.4	0.0	8.9	17.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	9.35	9.33	9.4	9.4	0.0	8.9	17.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	9.33	9.29	9.3	9.4	-0.1	8.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	9.29	9.30	9.3	9.4	-0.1	8.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	9.30	9.31	9.3	9.4	-0.1	8.9	17.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	9.31	9.90	9.4	9.4	0.0	8.8	17.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	281.3	281.9	187.7	188.0	-0.3	260.9		0.0		0.0		0.0		
TOTAL AF	558.0	559.2	372.3	372.9	-0.6		517.5		0.0		0.0		0.0	5,000.0

1 - The USGS gage had issues with seepage and unintentional bypasses from May through December 2023, resulting in inaccurate daily discharge measurements.
2 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Very Wet year.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

OCTOBER 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge /1	USGS Daily Website Discharge /2	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /3	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input /4	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	9.90	9.99				9.2	18.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	9.99	9.97				9.5	18.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	9.97	9.99				9.6	19.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	9.99	9.96				9.6	19.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	9.96	9.98				9.7	19.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	9.98	9.99				9.8	19.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	9.99	9.99				9.8	19.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	9.99	3.29				9.8	19.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	3.29	2.32				3.4	6.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	2.32	11.9				1.7	3.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	11.9	12.1	8.9	10.1	-1.2	11.2	22.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	12.1	12.1	9.2	10.1	-0.9	11.5	22.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	12.1	12.1	9.4	10.1	-0.7	11.5	22.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	12.1	11.8	9.6	10.1	-0.5	11.5	22.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	11.8	10.7	9.6	10.1	-0.5	11.3	22.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	10.7	10.1	9.6	10.1	-0.5	10.3	20.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	10.1	10.0	9.6	10.1	-0.5	9.7	19.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	9.96	10.0	10.3	10.1	0.2	9.6	19.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	10.0	6.69	10.7	10.1	0.6	9.7	19.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	6.69	6.50	10.2	10.1	0.1	6.7	13.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	6.50	10.0	10.0	10.1	-0.1	6.1	12.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	10.0	10.0	9.8	10.1	-0.3	9.7	19.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	10.0	5.64	9.1	10.1	-1.0	9.6	19.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	5.76	0.35	8.0	6.8	1.2	5.5	11.0	0.0	0.0	3.3	6.5	0.0	0.0	5,000.0
25	0.63	6.25	7.6	6.8	0.8	0.0	0.0	0.0	0.0	3.3	6.5	0.0	0.0	5,000.0
26	6.39	7.19	7.3	6.8	0.5	4.9	9.7	0.0	0.0	3.3	6.5	0.0	0.0	5,000.0
27	7.22	6.71	6.9	3.5	3.4	6.3	12.5	0.0	0.0	6.6	13.1	0.0	0.0	5,000.0
28	6.71	6.62	6.6	3.5	3.1	5.4	10.8	0.0	0.0	6.6	13.1	0.0	0.0	5,000.0
29	6.62	3.46	6.3	3.5	2.8	5.5	10.9	0.0	0.0	6.6	13.1	0.0	0.0	5,000.0
30	3.26	3.43	6.0	3.5	2.5	2.5	5.0	0.0	0.0	6.6	13.1	0.0	0.0	5,000.0
31	3.23	3.25	5.3	3.5	1.8	2.5	5.0	0.0	0.0	6.6	13.1	0.0	0.0	5,000.0
TOTAL SFD	259.2	252.4	180.0	169.2	10.8	243.1		0.0		42.9		0.0		
TOTAL AF	514.0	500.6	357.0	335.6	21.4		482.7		0.0		85.0		0.0	5,000.0

1 - The USGS gage had issues with seepage and unintentional bypasses from May through December 2023, resulting in inaccurate daily discharge measurements.

2 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Very Wet year through October 26th. The Minimum Flow Requirement was adjusted to 3.5 cfs from October 27th through December 31st, with a rampdown rate of 6.8 cfs from October 24th through 26th to avoid CAP credits. This adjustment is documented in TM 101623.0.

3 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

NOVEMBER 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge /1	USGS Daily Website Discharge /2	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /3	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input /4	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	3.25	3.26				2.6	5.1	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
2	3.26	3.24				2.6	5.1	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
3	3.24	3.24				2.6	5.1	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
4	3.24	3.26				2.5	4.9	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
5	3.26	3.27				2.6	5.2	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
6	3.27	3.28				2.5	5.0	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
7	3.28	3.28				2.5	4.9	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
8	3.24	3.24				2.4	4.8	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
9	3.25	3.25				2.4	4.8	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
10	3.27	3.27				2.6	5.1	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
11	5.17	5.17	3.5	3.5	0.0	3.8	7.5	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
12	12.6	12.6	4.4	3.5	0.9	11.5	22.9	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
13	6.08	6.08	4.7	3.5	1.2	5.2	10.3	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
14	3.40	3.40	4.7	3.5	1.2	2.6	5.2	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
15	61.8	61.0	10.5	3.5	7.0	1.9	3.8	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
16	69.8	68.3	17.0	3.5	13.5	0.0	0.0	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
17	12.7	12.2	17.9	3.5	14.4	0.0	0.0	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
18	4.69	4.43	18.0	3.5	14.5	0.1	0.1	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
19	3.83	3.59	18.0	3.5	14.5	1.4	2.8	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
20	3.62	3.37	18.0	3.5	14.5	1.7	3.4	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
21	3.70	3.44	17.8	3.5	14.3	2.2	4.4	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
22	3.66	3.39	16.9	3.5	13.4	2.2	4.4	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
23	3.73	3.45	16.7	3.5	13.2	2.3	4.5	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
24	3.78	3.48	16.7	3.5	13.2	2.3	4.5	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
25	3.75	3.45	10.9	3.5	7.4	2.3	4.5	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
26	3.76	3.45	4.4	3.5	0.9	2.3	4.6	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
27	3.77	3.77	3.6	3.5	0.1	2.4	4.7	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
28	3.76	3.76	3.5	3.5	0.0	2.4	4.7	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
29	3.77	3.77	3.5	3.5	0.0	2.3	4.5	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
30	3.90	3.90	3.6	3.5	0.1	2.1	4.2	0.0	0.0	8.0	15.9	0.0	0.0	5,000.0
TOTAL SFD	253.8	248.6	214.3	70.0	144.3	76.3		0.0		240.0		0.0		
TOTAL AF	503.5	493.1	425.1	138.8	286.2		151.0		0.0		477.0		0.0	5,000.0

1 - The USGS gage had issues with seepage and unintentional bypasses from May through December 2023, resulting in inaccurate daily discharge measurements.
2 - Minimum Flow Requirement adjusted from Section 5 Very Wet flow requirement from October 27th through December 31st to avoid CAP credits. This adjustment is documented in TM 101623.0.
3 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS
SANTA MARGARITA RIVER NEAR TEMECULA

DECEMBER 2023 - VERY WET YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge /1	USGS Daily Website Discharge /2	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /3	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input /4	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	3.83	3.83				2.1	4.2	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
2	3.90	3.90				2.4	4.7	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
3	3.93	3.93				2.3	4.6	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
4	3.86	3.86				2.2	4.4	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
5	3.86	3.86				2.3	4.5	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
6	3.83	3.83				2.0	3.9	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
7	3.80	3.80				2.2	4.3	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
8	3.70	3.70				2.1	4.2	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
9	3.68	3.68				2.1	4.2	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
10	3.67	3.67				2.1	4.2	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
11	3.67	3.67	3.8	3.5	0.3	2.2	4.3	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
12	3.67	3.67	3.8	3.5	0.3	2.2	4.3	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
13	3.68	3.68	3.7	3.5	0.2	2.2	4.3	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
14	3.68	3.68	3.7	3.5	0.2	2.3	4.5	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
15	3.69	3.69	3.7	3.5	0.2	2.2	4.4	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
16	3.67	3.69	3.7	3.5	0.2	2.2	4.4	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
17	3.69	3.69	3.7	3.5	0.2	2.2	4.4	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
18	3.69	3.69	3.7	3.5	0.2	2.2	4.3	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
19	3.71	3.71	3.7	3.5	0.2	2.1	4.2	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
20	3.97	3.97	3.7	3.5	0.2	1.9	3.8	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
21	17.9	17.9	5.1	3.5	1.6	0.0	0.0	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
22	101.	101.	14.9	3.5	11.4	0.0	0.0	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
23	20.1	20.1	16.5	3.5	13.0	0.0	0.0	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
24	7.59	7.54	16.9	3.5	13.4	0.0	0.0	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
25	3.98	3.93	16.9	3.5	13.4	0.5	1.0	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
26	3.88	3.83	16.9	3.5	13.4	1.6	3.2	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
27	3.73	3.66	16.9	3.5	13.4	1.9	3.7	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
28	3.77	3.70	16.9	3.5	13.4	1.9	3.7	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
29	7.85	7.71	17.3	3.5	13.8	5.6	11.2	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
30	8.13	7.96	17.7	3.5	14.2	3.9	7.8	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
31	7.89	7.71	16.7	3.5	13.2	4.2	8.3	0.0	0.0	10.0	19.8	0.0	0.0	5,000.0
TOTAL SFD	261.0	260.2	209.9	73.5	136.4	63.1		0.0		310.0		0.0		
TOTAL AF	517.7	516.2	416.3	145.8	270.5		125.0		0.0		613.8		0.0	5,000.0

1 - The USGS gage had issues with seepage and unintentional bypasses from May through December 2023, resulting in inaccurate daily discharge measurements.
2 - Minimum Flow Requirement adjusted from Section 5 Very Wet flow requirement from October 27th through December 31st to avoid CAP credits. This adjustment is documented in TM 101623.0.
3 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to Groundwater Bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

SANTA MARGARITA RIVER WATERSHED

ANNUAL WATERMASTER REPORT

WATER YEAR 2022-23

APPENDIX F

ANNUAL REPORT ISSUES SUBORDINATED DURING EFFECTIVE PERIOD OF THE COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

JULY 2025

APPENDIX F

SANTA MARGARITA RIVER WATERSHED

ANNUAL REPORT ISSUES SUBORDINATED DURING EFFECTIVE PERIOD OF THE COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

Introduction

Prior to implementation of the Cooperative Water Resource Management Agreement (CWRMA) entered into by Rancho California Water District (RCWD) and the United States on behalf of Camp Pendleton, there were contentions raised by Camp Pendleton each year, with respect to various aspects of the Annual Watermaster Report. These contentions are settled so long as CWRMA is in effect. Accordingly, there is no need to raise those particular issues or publish them in the main text of the annual report or in related correspondence.

However, the respective positions on these issues need to be preserved and protected from any finding of waiver, and there is a need to continue to collect related data in the event of need in the future.

Therefore, the applicable textual material in the previous annual reports and related comments and responses have been gathered here for preservation and maintenance of rights, with the understanding that the previous annual exchange of applicable contentions in the process of preparing the annual report is no longer necessary.

Issues Reserved

Section 3, Surface Water Availability and Use: In the absence of CWRMA implementation, Camp Pendleton disputes the method of calculation used in the annual report in Subsection 3.2 (Surface Water Diversions) and Table 3.3 (Surface Water Diversions to Storage for Vail Lake) for presentation of the information regarding Vail Lake and further asserts its belief that the Vail Dam impoundment fails to comply with the 1940 Stipulated Judgment.

Section 4, Subsurface Water Availability and Use: In the absence of CWRMA implementation, and with respect to Figure 4.1 (Water Level Elevations – Windmill Well) and to Subsections 4.3 (Water Levels) and 4.4 (Groundwater Storage), Camp Pendleton is concerned about the apparent excessive pumping in the Upper Basin, and further asserts its belief that the lengthy and significant drawdown and concomitant loss in storage adversely affect the water supply for adjacent and downstream users holding senior water rights.

Section 7, Water Production and Use: First, in the absence of CWRMA implementation, and with regard to the local production figures shown in Table 7.1 (Water Production and Use), Camp Pendleton is concerned about the high level of groundwater production from the Upper Basin, a level that Camp Pendleton believes to be substantially greater than the safe yield.

Second, in the absence of CWRMA implementation, and with regard to Footnote 6 of Table 7.1 (distinction between RCWD pumping of older alluvium water and of Vail recovery water), Camp Pendleton has serious reservations as to the accounting system that is being used as well as the legal and technical bases upon which such system has been formulated.

Third, in the absence of CWRMA implementation, and as to the RCWD part of Subsection 7.2.8 (Water Purveyors – Rancho California Water District), Camp Pendleton has serious reservations as to the accounting system that is being used as well as the legal and technical bases upon which such system has been formulated. These reservations include the following:

1. As to the "Vail Appropriation" part: *Representatives of the United States contend that under the 1940 Stipulated Judgment storage of water in Vail Lake is limited to Rancho California Water District's share of the flood waters of the Santa Margarita River system. However, to date, the parties have not agreed on a definition of "flood waters."*

2. As to the "Division of Local Water" part: *In 1995 well logs and geophysical logs of all Rancho California WD wells were reviewed by representatives of the United States and Rancho California WD to determine the depths of the younger alluvium. There was general agreement between the parties about the depth of the younger alluvium in production wells, except for ten wells shown on Table 7.7 of the 1994-95 report. In 2015, Watermaster, Rancho California WD and Camp Pendleton reviewed available geologic reports, geologic cross sections, well completion reports, driller logs, and geophysical logs to develop new geologic cross sections to delineate the depth of younger alluvium. The parties reached consensus on the depth of younger alluvium for wells previously in dispute as indicated in Table 7.7.*

Section 8, Unauthorized Water Use: In the absence of CWRMA implementation, and with respect to water use by RCWD, Camp Pendleton asserts the following:

1. Such use is in violation of the 1940 Stipulated Judgment by reason of, among other things, Vail Lake operations in excess of entitlement and pumping from both younger and older alluvium in excess of entitlement, which contentions RCWD disputes;

2. Rediversion and use of water impounded by Vail Dam are not in accord with terms of Permit 7032;

3. Unauthorized pumping is being done, including pumping from the younger alluvium outside of Pauba Valley without a permit and pumping from the older alluvium in violation of Court adjudications.

Section 9, Threats to Water Supply: In the absence of CWRMA implementation, and with respect to Subsection 9.3 (Potential Overdraft Conditions) and as noted in the foregoing comments to Sections 4 and 7, Camp Pendleton is seriously concerned regarding the apparent excessive pumping in the Upper Basin.

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SANTA MARGARITA RIVER WATERSHED

ANNUAL WATERMASTER REPORT

WATER YEAR 2022-23

APPENDIX G

INDEPENDENT AUDITOR'S REPORT

WATER YEAR 2022-23

JULY 2025

WATERMASTER OF THE SANTA MARGARITA RIVER WATERSHED

FINANCIAL REPORT

SEPTEMBER 30, 2023

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VAUGHN JOHNSON, CPA

INDEPENDENT AUDITOR'S REPORT

To the Steering Committee
Watermaster of the Santa Margarita River Watershed

Opinions

I have audited the accompanying financial statements of Watermaster of the Santa Margarita River Watershed, as of and for the year ended September 30, 2023, and the related notes to financial statements, as listed in the index.

In my opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Watermaster of the Santa Margarita River Watershed, as of September 30, 2023, and the respective changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

I conducted my audit in accordance with auditing standards generally accepted in the United States of America. My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. I am required to be independent of the Watermaster of the Santa Margarita River Watershed, and to meet my other ethical responsibilities, in accordance with the relevant ethical requirements relating to my audit. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Watermaster of the Santa Margarita River Watershed's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

4120 CAMERON PARK DRIVE SUITE 400 • CAMERON PARK, CA • 95682
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In performing an audit in accordance with generally accepted auditing standards, I:

- Exercise professional judgment and maintain professional skepticism throughout the audit.

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Watermaster of the Santa Margarita River Watershedôs internal control. Accordingly, no such opinion is expressed.

- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Watermaster of the Santa Margarita River Watershedôs ability to continue as a going concern for a reasonable period of time.

I am required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that I identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the managementôs discussion and analysis and budgetary comparison information on pages 3-5 and page 13 be presented to supplement the financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. I have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with managementôs responses to my inquiries, the basic financial statements, and other knowledge I obtained during my audit of the basic financial statements. I do not express an opinion or provide any assurance on the information because the limited procedures do not provide me with sufficient evidence to express an opinion or provide any assurance.

Vaughn Johnson
Vaughn Johnson, CPA
Cameron Park, CA
October 31, 2024

This discussion and analysis of Watermaster of the Santa Margarita River Watershed (the "Watermaster") financial performance provides an overview of the Watermaster's financial activities for the fiscal year ended September 30, 2023. Please read it in conjunction with the Watermaster's financial statements, which immediately follows this section.

FINANCIAL HIGHLIGHTS

Operating revenue for the Watermaster comes from municipal agencies based on an administrative assessment.

- The Watermaster ended the year with a net position of $484,595.
- Operation revenues were $876,321, while operating expenses were $860,846.

OVERVIEW OF THE FINANCIAL STATEMENTS

This annual report consists of two parts" management's discussion and analysis (this section) and the basic financial statements. The financial statements that accompany this report include a statement of net position, statement of revenues, expenses, and changes in net position, and statement of cash flows. These statements provide information about the activities and performance of the Watermaster using accounting methods similar to those used by private sector companies. The Statement of Net Position includes all of the Watermaster's investments in resources (assets) and the obligations to creditor (liabilities). It also provides the basis for computing a rate of return, evaluating the capital structure of the Watermaster and assessing the liquidity and financial flexibility of the Watermaster. All of the current year's revenue and expenses are accounted for in the Statement of Revenues, Expenses and Changes in Net Position. This statement measures the success of the Watermaster's operations over the past year and can be used to determine if the Watermaster has successfully recovered all of its costs thought its rates and other charges. This statement can also be used to evaluate profitability and credit worthiness. The final required financial statement is the Statement of Cash Flows, which provides information about the Watermaster's cash receipts and the cash payments during the reporting period. The Statement of Cash Flows reports cash receipts, cash payments and net change in cash resulting from operations, investing, non-capital financing, and capital and related financing activities and provides answers to such questions as where did cash come from, what was cash used for, and what was the change in cash balance during the reporting period.

FINANCIAL ANALYSIS OF THE WATERMASTER

One of the most important questions asked about the Watermaster's finances is, "Is the Watermaster better off or worse off as a result of this year's activities?" The Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position report information about the Watermaster in a way that helps answer this question. These statements include all assets and liabilities using the accrual basis of accounting, which is similar to the accounting method used by most private sector companies. All of the current year's revenues and expenses are taken into account regardless of when the cash is received or paid. These two statements report the Watermaster's net position and changes in net position. You can think of the Watermaster's net position – the difference between assets and liabilities – as one way to measure the Watermaster's financial health, or financial position. Over time, increases or decreases in the Watermaster's net position are one indicator of whether its financial health is improving or deteriorating.

NOTES TO THE BASIC FINANCIAL STATEMENTS

The notes provide additional information that is essential to a full understanding of the data provided in the basic financial statements.

BASIC FINANCIAL STATEMENT – COMPARATIVE ANALYSIS

Statement of Net Position

	2023	2022	Change
ASSETS			
Current assets	$526,596	$599,973	$(73,377)
Non-current assets		260	(260)
Total assets	526,596	$600,233	$(73,637)
LIABILITIES			
Current liabilities	$ 42,001	$133,288	$ 91,287
Total liabilities	42,001	133,288	91,287
NET POSITION			
Unrestricted	484,595	466,945	17,650
Total net position	$484,595	$466,945	$17,650

As noted earlier, net position may serve over time as a useful indicator of an entity's financial position. In the case of the Watermaster, assets of the Watermaster exceeded liabilities by $484,595 as of September 30, 2023, an increase in net position of $17,650 compared to 2022.

Statement of Revenues, Expenses, and Changes in Net Position

	2023	2022	Change
REVENUES			
Operating revenues	$ 876,321	$ 873,110	$3,211
Non-operating revenues – interest	2,175	499	1,676
Total revenues	878,496	873,609	4,887
EXPENSES			
Operating expenses	860,846	796,062	(64,784)
Change in net position	17,650	77,547	(59,897)
Net position - beginning of year	466,945	389,398	77,547
Net position - end of year	$ 484,595	$466,945	$17,650

The accompanying notes are an integral part of these financial statements.

The statement of revenues, expenses and changes of net position shows how the Watermaster's net position changed during the fiscal year. In the case of the Watermaster, net position increased by $17,650 for the year ended September 30, 2023, as compared to an increase of $77,547 in 2022. This was primarily due to increase in operating expenses and small increase in assessments.

SIGNIFICANT VARIANCES BETWEEN ORIGINAL AND FINAL BUDGET

In year 2022-2023, total expenses were less than total budgeted. Total Watermaster fees were more than budgeted and legal expenses were less than budgeted. Legal services were less than budgeted primarily due to a reduction in legal work effort and travel costs.

CONDITIONS AFFECTING CURRENT FINANCIAL POSITION

Management is unaware of any conditions, which could have a significant impact on the Watermaster's current financial position, net position or operating results based on past, present and future events.

CONTACTING THE WATERMASTER'S FINANCIAL MANAGEMENT

This financial report is designed to provide a general overview of the Watermaster's finances and to demonstrate the Watermaster's accountability for the money it receives. If you have any questions about this report or need additional financial information, please contact the Watermaster of the Santa Margarita River Watershed at 701 University Ave, Suite 205, Sacramento, CA 95825.

WATERMASTER OF THE SANTA MARGARITA RIVER WATERSHED
STATEMENT OF NET POSITION
PROPRIETARY FUNDS
SEPTEMBER 30, 2023

ASSETS		
Current assets:		
Cash and investments	$	463,797
Accounts receivable		62,599
Prepaid expenses		200
Total current assets		526,596
Noncurrent assets:		
Property (net of depreciation)		-
Total assets	$	526,596
LIABILITIES		
Current liabilities:		
Accounts Payable		$42,001
Retainer		
Unearned Assessments		
Total current liabilities		42,001
NET POSITION		
Unrestricted		484,595
Total net position	$	484,595

The accompanying notes are an integral part of these financial statements.

WATERMASTER OF THE SANTA MARGARITA RIVER WATERSHED
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
PROPRIETARY FUNDS
FOR THE YEAR ENDED
SEPTEMBER 30, 2023

Operating revenues		
Assessments	$	876,321
Operating expenses		
Watermaster fees:		
Consulting services		552,275
Total Watermaster fees		552,275
Other expenses:		
Gauging station operation		292,818
Accounting services		4,358
Audit		7,250
Legal services		3,885
Depreciation expense		260
Total other expenses		308,571
Total operating expenses		860,846
Income from operations		15,475
Non operating revenues (expenses)		
Interest		2,175
Change in net position		17,650
Net position - beginning of year		466,945
Net position - end of year	$	484,595

The accompanying notes are an integral part of these financial statements.

WATERMASTER OF THE SANTA MARGARITA RIVER WATERSHED
STATEMENT OF CASH FLOWS
PROPRIETARY FUNDS
FOR THE YEAR ENDED
SEPTEMBER 30, 2023

CASH FLOWS FORM OPERATING ACTIVITIES:		
Receipts from customers	$	751,013
Payments to suppliers and vendors		(857,982)
Net cash provided by operating activties		(106,969)
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest received		2,175
Certificate of deposit		(849)
Net cash provided by investing activities		1,326
Change in cash and cash equivalents		(105,643)
Cash and cash equivalents - beginning of year	$	326,276
Cash and cash equivalents - end of year	$	220,633
RECONCILIATION OF OPERATING REVENUES TO NET CASH PROVIDED BY OPERATING ACTIVITIES		
Income from operations	$	15,475
ADJUSTMENT TO RECONCILE NET INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES		
Depreciation		260
(INCREASE) DECREASE IN:		
Accounts receivable		(31,417)
INCREASE (DECREASE) IN:		
Accounts payable		2,604
Unearned assessments		(93,891)
Net cash provided by operating activies	$	(106,969)

The accompanying notes are an integral part of these financial statements.

1. ORGANIZATION

Nature of Operations

Watermaster of the Santa Margarita River Watershed (Watermaster) was created by order of the United States District court, Southern District of California (Court). The Court, as part of its continuing jurisdiction in the case of United States vs. Fallbrook Public Utility District et. al, has authority to make judicial determination of all water rights within the Santa Margarita River Watershed. The Watermaster is empowered by the Court to administer and enforce the provision of a Modified Final Judgment and Decree entered April 6, 1966, and subsequent instructions and orders of the Court. On November 30, 2016, the Court issued an Order appointing Michael Preszler to serve as Watermaster.

A Steering Committee was appointed by the Court to assist the Watermaster and the Court. The Steering Committee is comprised of representatives from the United States (Camp Pendleton Marine Corps Base), Rancho California Water District, Fallbrook Public Utility District (FPUD), Eastern Municipal Water District, Metropolitan Water District of Southern California, the Pechanga Band of Luiseno Mission Indians, and Western Municipal Water District.

The fees and expenses of the Watermaster during the water year ended September 30, 2023, were, per court order, paid from equal assessments against the Steering Committee members. The Court retains the right to assess other parties in the watershed in future years. Pursuant to an agreements between the Watermaster and the United States Geological Survey (USGS), the USGS provides operations and maintenance services for stream gauging stations and groundwater monitoring wells in the watershed.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting and Measurement Focus

The Watermaster reports its activities as an enterprise fund, which is used to account for operations that are financed and operated in a manner similar to a private business enterprise. Revenues and expenses are recognized on the full accrual basis of accounting. Revenues are recognized in the accounting period in which they are earned and expenses are recognized in the period incurred, regardless of when the related cash flows take place.

Operating revenues and expenses, such as Watermaster assessments result from exchange transactions associated with the principal activity of the Watermaster. Exchange transactions are those in which each party receives and gives up essentially equal values. The principal operating revenues of the Watermaster are regulatory assessments to Steering Committee Members. Management, administration and depreciation expenses are also considered operating expenses. Other revenues and expenses are not included in the above categories are reported as non-operating revenues and expenses.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Cash and cash Equivalents

Cash and cash equivalents are composed of cash in banks and liquid investments with original maturities of three months or less.

Investments

Investments in marketable securities with readily determinable fair values and all investments in debt securities are reported at their fair values in the Statement of Net Assets. The fair values of these investments are subject to change based on the fluctuations of market values. Unrealized gains and losses are included in the change in net assets. Investment income and gains restricted by a donor or by the Watermaster are reported as increases in unrestricted net assets if the restrictions are met (either by the passage of time or by use) in the reporting period in which the income and gains are recognized.

Fair Value Measurements

Certain assets and liabilities are required to be reported at fair value. The fair value framework provides a hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of fair value hierarchy are described as follows:

Level 1 ï Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets.

Level 2 ï Inputs other than quoted prices included within Level 1 that observable for the asset or liability, either directly or indirectly and fair value is determined through the use of models or other valuation methodologies including:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in markets that are inactive;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 ï Inputs to the valuation methodology are unobservable and significant to the fair value measurement. These unobservable input reflect the Watermasterôs own assumptions about the inputs market participants would use in pricing the asset or liability (including assumptions about risk). These unobservable inputs are developed based on the best information available in the circumstances and may include the Watermasterôs own data.

Accounts Receivable

Watermaster considers accounts receivable to be fully collectible; accordingly, no allowances for doubtful accounts is required.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Fixed Assets

Fixed assets are recorded at cost and depreciated under the straight-line method over their estimated useful lives of 3 to 10 years. Repair and maintenance costs, which do not extend the useful lives of the asset, are charge to expense. The cost of assets, sold or retired, and related amounts of accumulated depreciation are eliminated from the accounts in the year of disposal, and any resulting gain or loss is included in the earnings. Management has elected to capitalize and depreciate all assets costing $2,000 or more; all other assets are charged to expense in the year incurred.

Unearned Assessments

Advanced assessments represent amounts levied or collected in the current year that apply to the next fiscal year.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

3. CASH AND INVESTMENTS

Cash and investments at September 30, 2023, consisted of the following:

Cash in bank	$ 1,389
Money market	219,244
Certificates of deposit	243,164
Total cash and investments	$ 463,797

Custodial credit risk is the risk that in the event of a bank failure, the Watermasterôs deposits may not be returned. Cash balances held in banks are insured up to $250,000 by the Federal Deposit Insurance Corporation (FDIC). The California Government Code requires that a financial institution secure deposits made by state or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under state law (unless so waived by the governmental unit). The market value of the pledge securities in the collateral pool must equal at least 110 percent of the total amount deposited by the public agency. California law also allows financial institutions to secure public deposits by pledging first trust deed mortgage notes having a value of 150 percent of the secured public deposits and letters of credit issued by the Federal Home Loan Bank of San Francisco having a value of 105 percent of the secured deposits. At September 30, 2023 the Watermasterôs bank balance was $1,389. The bank balance and the Certificates of deposit of $243,164 and money market account of $219,244 are fully insured by FDIC.

Custodial credit risk for investments is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by assigning a minimum credit rating by a national credit rating agency. This does not apply to money market funds or certificates of deposit. The investment policy of the Watermaster contains no limitations on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. The Watermasterôs funds are held by one institution, Pacific Western Bank. Fair value level reporting and interest rate risk do not apply to money market funds or certificates of deposit.

4. CAPITAL ASSETS

Capital assets at September 30, 2023, consisted of the following:

Computer equipment	$ 10,862
Office furniture and equipment	19,461
Less: accumulated depreciation	(30,323)
Total fixed assets, net of depreciation	$ -0-

5. UNEARNED ASSESSMENTS

There were no unearned assessments balance on September 30, 2023 for 2023-2024 assessments for the next fiscal year.

6. RELATED PARTY TRANSACTIONS

The Watermaster has entered into an agreement with Rancho California Water District (RCWD), which is a member of the Watermaster Steering Committee, whereby RCWD provides accounting services.

Data management and clerical support services are performed at the Watermaster office.

7. GAUGING STATION OPERATION

The cooperative water resources program is a Joint Funding Agreement (FA) between the Watermaster (SMRW) and the U.S. Geological Survey (USGS) and associated costs for streamgaging activities and groundwater levels. Groundwater levels consists of operation and maintenance of six continuous monitors and GOES transmitter at Pala Park, Temecula Creek Trial Park and Temecula Via Caballos, and two continuous monitors at Wolf Valley Well Cluster including monthly levels.

8. SUBSEQUENT EVENTS

Management evaluated all the activities of the Watermaster through October 31, 2024 the date the financial statements were available to be issued.

SUPPLEMENTARY INFORMATION

WATERMASTER OF THE SANTA MARGARITA RIVER WATERSHED
SCHEDULE OF REVENUES AND EXPENSES--BUDGET AND ACTUAL
PROPRIETARY FUNDS
FOR THE YEAR ENDED
SEPTEMBER 30, 2023

	Original/ Final Budget	Actual	Variance Favorable (Unfavorable)
Revenues			
Assessments	$ 876,321	$ 876,321	$ -
Interest		2,175	2,175
Total revenues	876,321	878,496	2,175
Expenses			
Watermaster fees:			
Consulting services	534,351	552,275	(17,924)
Travel reimbursements	7,000	-	7,000
Other expenses:			
Gauging station operation	291,870	292,818	(948)
Accounting services	6,000	4,358	1,642
Audit	6,500	7,250	(750)
Legal services	30,000	3,885	26,115
Postage	100	-	100
Depreciation		260	(260)
Miscellaneous	500	-	500
Total expenses	$ 876,321	$ 860,846	$ 15,475

The budget is prepared on the accrual basis to account for all revenues and expenses necessary to carry out the Watermasterôs activities.

WATERMASTER OF THE SANTA MARGARITA RIVER WATERSHED
BUDGET VERSUS ACTUAL COMPARISON
FOR THE YEAR ENDED SEPTEMBER 30, 2023

The budget is prepared on the accrual basis to account for all revenues and expenditures necessary to carry out the Watermaster's activities.

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This exhibit is to be used for approximate purposes only. Not to be used for engineering, recording, or litigation purposes. No warranty of accuracy is implied or guaranteed.



Santa Margarita River Watershed

Major Water Purveyors

Lake Elsinore
LAKE ELSINORE
Elsinore Valley Municipal Water District
Western Municipal Water District Murrieta Division
Wildomar
Murrieta
Eastern Municipal Water District
DIAMOND VALLEY LAKE
LAKE SKINNER
Warm Springs Creek
Rawson Creek
Tucalota Creek
Cole Creek
Murrieta Creek
11042700
11042800
11042900
Santa Gertrudis Creek
Rancho California Water District
Temecula
11043000
Sandia Creek
De Luz Creek
Cottonwood Creek
Santa Margarita River
11044000
11042631
Temecula Creek
VAIL LAKE
Pechanga Reservation
Pechanga Creek
11042400
Wilson Creek
Sage
Ramona Village
Anza
Cahuilla Creek
Cahuilla Reservation
LAKE RIVERSIDE
Tule Creek
Aguanga
Arroyo Seco Creek
RIVERSIDE COUNTY
SAN DIEGO COUNTY
Chihuahua Creek
Fallbrook Public Utilities District
11044800
11044350
11044300
11044250
Rainbow Creek
Camp Pendleton
Fallbrook
Fallbrook Creek
Rainbow Municipal Water District
Pauma and Yuima Reservation
11045300
LAKE O'NEILL
11046000
Oceanside
ORANGE COUNTY
74
79
215
15
76
5
371

Note: The Western Municipal Water District Service Area also includes the Elsinore Valley Municipal Water District and portions of the Rancho California Water District.
The Eastern Municipal Water District Service Area also includes portions of the Rancho California Water District and Murrieta Division of the Western Municipal Water District.

Legend

- RCWD Service Area
- EMWD Service Area
- MCB-Camp Pendleton
- FPUD Service Area
- WMWD Service Area
- EVMWD Service Area
- Rainbow MWD Service Area
- USGS Station ID
- Santa Margarita River Watershed Boundary
- Indian Reservations

0 2 4 6 8 10 12 mi

N

Prepared by: Robert Heather Date: 2018-09-14 Document Path:P:\SMRW Watermaster\Maps\Layout_1_Master

Recommended Groundwater Production

Fiscal Year July 1, 2026 through June 30, 2027

DRAFT

PREPARED FOR:

Rancho California Water District

January 2026



Geoscience Support Services, Inc., **Groundwater Resources Development**
P.O. Box 220, Claremont, CA 91711 | P: 909.451.6650 | F: 909.451.6638 | www.gssiwater.com

GEOSCIENCE

THIS REPORT IS RENDERED TO RANCHO CALIFORNIA WATER DISTRICT AS OF THE DATE HEREOF, SOLELY FOR THEIR BENEFIT IN CONNECTION WITH ITS STATED PURPOSE AND MAY NOT BE RELIED ON BY ANY OTHER PERSON OR ENTITY OR BY THEM IN ANY OTHER CONTEXT. THE CONCLUSIONS OF THIS REPORT ARE BASED UPON DATA AS SUPPLIED BY RANCHO CALIFORNIA WATER DISTRICT AND WESTERN MUNICIPAL WATER DISTRICT. ALL CALCULATIONS WERE PERFORMED USING ACCEPTED PROFESSIONAL STANDARDS.

Tim Chen, PE
Senior Project Manager

Leo Liu
Project Modeler

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RANCHO CALIFORNIA WATER DISTRICT

RECOMMENDED GROUNDWATER PRODUCTION
Fiscal Year July 1, 2026 through June 30, 2027

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Acronyms, Abbreviations, and Initialisms

Abbrev.	Description
afy	acre-feet per year
CWRMA	Cooperative Water Resource Management Agreement
DDW	Division of Drinking Water
District	Rancho California Water District, also “Rancho Water”
ft	foot, or feet
Geoscience	Geoscience Support Services, Inc.
gpm	gallons per minute
MCL	Maximum Contaminant Level
MWD	Metropolitan Water District
PFAS	perfluoroalkyl and polyfluoroalkyl substances
Rancho Water	Rancho California Water District, also “District”
TAC	Technical Advisory Committee
ug/L	micrograms per liter
VDC	Valle De Los Caballos
WMWD	Western Municipal Water District

RANCHO CALIFORNIA WATER DISTRICT

RECOMMENDED GROUNDWATER PRODUCTION
Fiscal Year July 1, 2026 through June 30, 2027

1.0 Executive Summary

The purpose of the annual water audit review is to recommend a groundwater production program for the period from July 1, 2026 through June 30, 2027 (fiscal year 2026-27). This review was performed using the most current data from the water year ending on September 30, 2025.

The groundwater production recommendations for fiscal year 2026-2027 are based primarily on a review of individual well production and historical hydrographs. During the review, groundwater level elevations from all production and monitoring wells were considered. Hydrologic subareas and "index wells" representing water level changes in the subarea were used to help formulate a recommendation for production during fiscal year 2026-27. This recommendation also includes input from a workshop held between Rancho California Water District (Rancho Water) and Geoscience Support Services, Inc. (Geoscience) personnel. The workshop included discussions of actual well production rates, instantaneous yield, natural and artificial recharge, water quality issues, pump settings and well maintenance factors.

Where water level trends in subarea index wells indicate a decline over several years, lower production values have been recommended. Where water level declines have not occurred, and as other factors permitted, recommended production values have been increased. Total recommended production for fiscal year 2026-27 is 36,050 afy. The recommended amount of annual production for the wells is consistent with Rancho Water's groundwater management plan and was made with consideration given to historical water levels, precipitation, production, water quality and expected natural and artificial recharge. Consideration was also given to the projected production from Western Municipal Water District's (WMWD) production wells in the northern Murrieta Valley area. As always, in keeping with sound groundwater basin management practices, the recommended production should be considered as a guideline only and is subject to revision as additional data become available.

For fiscal year 2026-27, Rancho Water intends to recharge at least 19,500 afy of untreated import water in the Upper Valle De Los Caballos (VDC) area. There are no planned Vail Lake releases for the year. Considering a total artificial recharge of 19,500 afy and a total recommended groundwater production of 36,050 afy, the net groundwater withdrawal from the basin for fiscal year 2026-27 will be 16,550 afy. Since Water Year 2023, RCWD has banked a total of 23,388 acre-ft of water and will withdraw 500 acre-ft of the banked storage in fiscal year 2026-27. This accounting credit will result in a balance of 16,050 afy of native production.

Tables 1 and 2 summarize recommended fiscal year 2026-27 groundwater production. Table 1 shows the production recommendations sorted by hydrologic subunit[1] and Table 2 shows them sorted by Rancho Water well number. Figure 1 is a general map showing Rancho Water and WMWD well locations in the Murrieta Temecula Groundwater Basin. Figure 2 shows the recommended 2026-2027 production for each of Rancho Water's 60 groundwater pumping wells. Figures 3 and 4 provide the model-predicted water levels and Table 3 summarizes the predicted change in water levels for the Pauba and Temecula index wells in each subarea under the recommended fiscal year 2026-27 pumping conditions.

[1] The names and boundaries of the nine hydrologic subunits are shown on Figure 1.

2.0 Methodology

A groundwater audit (water budget review) was performed to evaluate and recommend groundwater production levels for fiscal year July 1, 2026 to June 30, 2027. The underlying philosophy guiding the audit has been, and continues to be, one of sound basin management. This management involves the operation of the groundwater basin within safe yield limits so as not to create permanent overdraft (mining) or other undesirable conditions that could degrade water quality or violate legal restrictions. Determination of the amount of groundwater hydrologically, economically, and legally available to Rancho Water is an ongoing process of evaluation and review.

2.1 Review of Historical Records of Groundwater Levels and Production

2.1.1 Index Wells, Production Wells, and Monitoring Wells

In the wellfield optimization study (conducted by Geoscience in April 1993), the Rancho Water service area was divided into small polygonal areas based on geohydrologic relationships and the relative locations of Rancho Water production wells (see Figure 1). Numbers were assigned to each subarea for identification purposes. An “index well” was chosen for each polygonal subarea. Index wells reflect changes in water levels in each of the production wells within a subarea. Generally, index wells are non-production monitoring wells having several years of historical water level data. When these criteria could not be met, a production well which best reflected water level changes in the subarea was chosen as an index well.

Multiple regression analyses were conducted for each polygonal subarea based on index well monthly water levels, production well monthly water levels, monthly production, and monthly precipitation in the area (i.e., Temecula Station No. 217). Long-term (i.e. January 1981 to September 2025) and short-term (i.e., July 2024 to June 2025) water level changes in each index well were then used to determine the water level trends for the corresponding subarea.

2.1.2 Review of Water Level and Production Trends

Trend analyses of changing long- and short-term groundwater levels and production were performed for 56 of Rancho Water’s production wells (see Appendix A). January 1981 to September 2025 was designated as the period for long-term water level trend analysis, and July 2024 to June 2025 was designated as the period for short-term water level trend analysis. For wells with available construction data, the long-term graph also includes elevations of screen interval(s) to show the relationship between the uppermost screen section and water level trend. Long-term water levels are provided for 18 index wells in Appendix B, and Appendix D contains plots of long-term water levels and production for the seven (7) WMWD wells located in the northern Murrieta Valley area.

The recommended production values for fiscal year 2026-27 were first estimated based on water level trends and historical production within each subarea. Where water level trends in production wells and index wells indicated a decline over several years, lower production values have been recommended. Where water level declines have not occurred, recommended production values may have been increased contingent on other constraints (e.g., water quality, mechanical or legal).

2.2 Workshop with Rancho Water and Geoscience Personnel

A workshop among Rancho Water, WMWD and Geoscience personnel was held on November 6, 2025, for the purpose of discussing details regarding recommended production levels for the previous fiscal year and any specific problems or concerns on a well-by-well basis. For each well, items such as the instantaneous yield, static submergence, pump lowering potential, long- and short-term water level trends, water quality, construction, litigation, and air problems were discussed and tabulated. The charts provided in Appendix A summarize these factors which are taken into consideration when developing a recommended production for each well. The initial production recommendations were then revised based on the well-by-well factors, as discussed during the workshop.

2.3 Verification of Recommended Production

The draft recommended groundwater production for fiscal year 2026-27 was verified by using the updated surface and groundwater model of the Murrieta-Temecula Groundwater Basin (Geoscience, 2014). In addition, the proposed amounts of artificial recharge in the Upper VDC area were simulated using the model. Sources for the recharge water have previously included purchased untreated import water and releases from Vail Lake, however, no releases are planned from Vail Lake in fiscal year 2026-27. The model was also used to simulate change in water levels for a two-year period (July 2026 to June 2028) under the recommended fiscal year 2026-27 production conditions.

2.3.1 Murrieta-Temecula Groundwater Basin Model

The surface and groundwater model of the Murrieta-Temecula Groundwater Basin was first developed between 1995 and 1999 as a cooperative technical effort involving representatives of Camp Pendleton and the Rancho Water, their respective consultants (Stetson and Geoscience), their respective legal advisors, the Santa Margarita River Watermaster, and the U.S. Geological Survey. The model was updated to fulfill the requirement of the March 26, 2002 Cooperative Water Resources Management Agreement (Geoscience, 2003). Based on the review of the types of surface water models available, the Technical Advisory Committee (TAC) decided to use GSFLOW modeling software, which uses an integrated surface water model (PRMS) and groundwater model (MODFLOW-2005), to account for the surface water recharge within the model boundary. The Murrieta-Temecula Groundwater Basin Model boundary was expanded during the refinement process to incorporate the PRMS watershed for the purpose of integrating the PRMS and MODFLOW components. The model grid covers an area of approximately 551 square miles (352,617 acres) with a uniform finite-difference grid consisting of 300 rows in the north to south direction and 320 columns in the west to east direction for a total of 96,000 cells per layer, or 480,000 cells total. Each model cell of the Murrieta-Temecula Groundwater Basin Model represents an area of 400 feet by 400 feet (Geoscience, 2014). Originally, the model cell size varied from 600 feet by 600 feet up to 5,000 feet by 5,000 feet. The refined model cell size allows for a more accurate description of the location of model features.

2.3.2 Model Simulation Run

The model run was simulated for a period of two years from July 2026 through June 2028 with a total Upper VDC recharge of 19,500 afy. The artificial recharge includes 19,500 afy of purchased untreated import water. It was assumed there would be no release from Vail Lake in the simulation period. Simulated

groundwater pumping was based on the fiscal year 2026-27 draft recommended production. Geohydrologic parameters such as hydraulic conductivity, storativity, leakance, fault conductance, and streambed conductance were based on values from the updated model. Precipitation was based on the average of the selected hydrologic base period from 1983 to 2007 (15.5 inch/yr). This base period covers both wet and dry hydrologic cycles, and the average precipitation is approximately the same as the long-term.

Two model simulation scenarios were developed based on the fiscal year 2026-27 draft recommended production. Under Scenario 1 conditions, groundwater pumping is assumed to be the same as the fiscal year 2026–27 draft recommended production, with the exception of Wells 135, 145, and 146 located in the N. Murrieta Valley. These wells are assumed to pump 15 afy, representing minimum maintenance pumping. Scenario 2 builds upon Scenario 1 by increasing the recommended groundwater production of Well 119 located in the Wolf Valley to 525 afy in fiscal year 2026–27, while all other wells retain the same pumping assumptions defined in Scenario 1.

Results from Scenario 1, under average precipitation conditions, are provided as hydrographs (water level changes over time) for selected Pauba Aquifer wells (Figure 3) and Temecula Aquifer wells (Figure 4) located in the 21 hydrologic areas of the groundwater basin. The net withdrawal of groundwater from the basin is 16,595 afy (36,095 afy pumping less 19,500 afy of artificial recharge in the Upper VDC area). As shown on Figures 3 and 4, operation of the groundwater basin under the recommended fiscal year 2026-27 pumping and proposed artificial recharge in the Upper VDC area are predicted to change water levels from between an increase of approximately 3 ft and a decrease of approximately 17 ft in the Pauba Aquifer. Water levels within the Temecula Aquifer (see Figure 4) under the same conditions are predicted to change by an approximately 5 ft increase to a 11 ft decline by the end of June 2028. Predicted changes in water levels for selected wells at each subarea and subunit summarized in Table 3. The biggest declines in water level (approximately 17 feet in the Pauba Aquifer) were predicted at the two Index Wells 499 and 414, both located in the Upper VDC area, and these were caused by the additional pumping from the Upper VDC wells. However, this result was modeled based on a conservative scenario with a baseline Upper VDC recharge of 19,500 afy. It is highly possible that Rancho Water will be able to recharge additional imported water to mitigate the predicted water level declines with the additional aquifer storage room created by the additional Upper VDC pumping wells. Hence, the above-mentioned modeling results, under average hydrologic conditions, still demonstrate that the recommended productions at Rancho Water wells are sustainable and will not cause negative impact on the groundwater aquifers.

The simulation results of Scenario 2 indicate that this increase has only a minor impact on groundwater level changes when compared with Scenario 1 conditions (Table 3). These findings further support the recommended production levels for Rancho Water wells in fiscal year 2026-27.

3.0 Recommended Groundwater Production

3.1 Pumping Schedule for Wolf Valley Wells

3.1.1 Well 211

To monitor the aquifer compression/rebound under pumping conditions in the Wolf Valley area, groundwater production at Wolf Valley Well 211 was recommenced in July 1994. During the period from fiscal year 1994-1995 through fiscal year 1998-1999, Well 211 was operated approximately 6 hours every other day. This limited schedule yielded an annual production of approximately 942 afy. Starting in fiscal year 1997-1998 and continuing through fiscal year 2001-2002, the pumping schedule for Well 211 was increased, producing a total of approximately 1,117 afy to 1,628 afy of groundwater.

Well 211 was turned off in December 2002 due to issues related with suction break; therefore, the annual production for fiscal year 2002-2003 decreased to approximately 420 afy. During fiscal years 2003-2004 through 2007-2008, Well 211 was inactive, then reactivated for fiscal years 2008-2009 through 2022-2023 during which total production ranged from approximately 152 afy to 754 afy. Production for fiscal year 2023-2025 was 0 afy due to the presence of perfluoroalkyl and polyfluoroalkyl substances (PFAS) in water quality samples from this well. For fiscal year 2026-27, Geoscience continues to recommend no production from Well 211 due to the continued presence of perfluoroalkyl and polyfluoroalkyl substances (PFAS) in water quality samples from this well.

3.1.2 Wells 119 and 122

In fiscal year 1996-1997, Well 119 was initially turned on during even days of the month between the hours of 6:00 AM and noon, at a pumping rate of approximately 500 gpm. This schedule yielded a production of 585 afy. Well 122 was left idle in Jul-1996-Feb-1997. For fiscal year 1997-1998, an annual production was increased to 629 afy and 406 afy for Wells 119 and 122, respectively. Production for Well 119 was increased slightly in fiscal years 1998-1999 and 1999-2000. During fiscal years 2000-2001 through 2023-2024, annual production for Well 122 ranged from 0 afy to 1,496 afy, and from 2 afy to 1,588 afy for Well 119. Pumping for Well 122 has been stopped since June 2023, and Well 119 has been offline since November 2023 due to the presence of PFAS in water quality samples from these wells. For fiscal year 2026-2027, it is recommended that Wells 119 and 122 also have no production due to the continued presence of PFAS in water quality samples from these wells.

3.2 Pumping Schedule for the Southern Murrieta Wells

On April 1, 1992, in order to monitor aquifer compression/rebound under pumping conditions, Rancho Water reactivated the four southern Murrieta wells (101, 102, 118, and 121). The duration of pumping for the program's first phase was eight hours per day with only two wells operating at the same time. Since the 1995-1996 fiscal year, pumping of the southern Murrieta wells has been according to the program's planned second phase schedule. This second phase schedule pumps two wells at a time for 16 hours per day, every other day. This increased pumping program and the corresponding monitoring program produced data that conclusively showed no occurrence of non-recoverable aquifer compaction. These data also indicate that the compression and rebound of this aquifer is closely related to groundwater

pumping. Continued monitoring and analysis of these aquifers will prevent the occurrence of future problems.

Actual annual production amounts for fiscal years 2001-2002 through 2024-2025 from these southern Murrieta wells ranged from 0 afy to 1,927 afy. For fiscal year 2026-2027, it is recommended that no production occur from Wells 101, 118, and 121. Additionally, water quality samples from Well 102 indicate detectable levels of PFAS present, and as such it is also recommended that no production occur here either.

3.3 Pumping Schedule for the Northern Murrieta Wells

In fiscal year 2005-2006, Rancho Water wells in the Northern Murrieta Valley (135, 144, 145, 146, and 155) produced approximately 1,465 afy of water. In fiscal year 2006-2007, these wells produced 1,323 afy. In fiscal year 2007-2008, Well 156 was activated and produced 396 afy of water. From that time through fiscal year 2024-2025, the total annual production from these Rancho Water wells ranged from approximately 645 to 2,310 afy.

For fiscal year 2026-2027, the recommended production for Rancho Water Wells 135, 144, 145, 146, 155, and 156 is 0 afy, 0 afy, 450 afy, 0 afy, 0 afy, and 575 afy, respectively, for a total recommended production of approximately 1,025 afy from the Rancho Water Northern Murrieta wells.

3.4 Pumping Schedule for the Pauba Valley Wells

3.4.1 Pauba Aquifer Wells

For fiscal year 2026-2027, the recommended Upper VDC purchased untreated import water artificial recharge is 19,500 afy. This increase is primarily due to additional pumping from new Wells 172, 173, 174 and 175. To optimize the artificial recharge and recovery operations for the Upper VDC recharge facility, it is recommended that Rancho Water operate Wells 152, 153, 154, 157, 158, 161, 172, 173, 174 and 175 as much as possible.

During fiscal years 2005-2006 through 2024-2025 the total production for these Upper VDC recharge recovery wells ranged from 6,200 afy to 13,762 afy. For fiscal year 2026-2027, the total recommended production for all Upper VDC wells is approximately 14,375 afy.

In addition, production from Wells 141, 164, 233, and 236 should be maintained at a high level, creating a “pumping depression” to maximize VDC recharge capabilities. For fiscal year 2026-2027, the total recommended production for these four Upper Pauba Valley wells is 4,750 afy. Meanwhile, the recommended production for Well 109 in the lower Pauba Valley is 225 afy. The District will not claim any water through the Metropolitan Water District (MWD) cyclic storage program. For fiscal year 2026-2027, the total recommended production for Pauba Valley Wells screened in Pauba Aquifer is 19,350 afy.

Appendix C contains figures for the wells located in the Upper Pauba Valley Subunit. These figures contain charts comparing monthly depth to water measurements to recharge volumes at the Upper VDC recharge basins and cumulative departure from mean precipitation for all selected wells, as well as monthly groundwater pumping volumes for District-owned production wells in the subunit.

3.4.2 Temecula Aquifer Wells and Combined Aquifer Wells

In addition to the Pauba Aquifer wells, there are nine (9) wells screened in Temecula Aquifer and six (6) screened across both Pauba and Temecula Aquifers (referred to as Combined Aquifer). For fiscal year 2026-27, the total recommended production is 5,875 afy for the Temecula Aquifer wells, and 2,100 afy for the Combined Aquifer wells.

3.5 Pumping Schedule for the Santa Gertrudis Wells

For fiscal year 2026-2027, the total recommended production for Rancho Water Santa Gertrudis wells is 3,575 afy, which includes 2,950 afy from the Temecula Aquifer, and 625 afy from the Combined Aquifer.

3.6 Pumping Schedule for the Upper and Lower Mesa Wells

Rancho Water's Upper Mesa wells and Lower Mesa wells are all screened in the Temecula Aquifer. For fiscal year 2026-2027, the total recommended production is 725 afy and 3,050 afy for Upper Mesa wells and Lower Mesa wells, respectively.

3.7 Recommended Production for Fiscal Year 2026-2027

The final recommended production volumes for Rancho Water wells during fiscal year 2026-2027 are provided in Tables 1 and 2 (by Hydrologic Unit and well number, respectively). The locations of the wells are shown on Figure 1. Recommended production amounts are also shown graphically by hydrologic subunit on Figure 2. The total recommended production for the period from July 1, 2026 through June 30, 2027 is 36,050 afy, which will be produced from 43 active wells[3]. Considering the recommended total groundwater production and a total artificial recharge of 19,500 afy, the net groundwater withdrawal from the basin for fiscal year 2026-2027 will be approximately 16,550 afy.

[3] Rancho Water has a total of 60 production wells; however, some wells are not intended to be operated during the 2026-2027 fiscal year. Refer to Appendix A for detailed operational information.

4.0 Water Quality

Wells with water quality issues are the same as those identified in fiscal year 2024 - 25. Table 4 summarizes water quality concerns within the Murrieta-Temecula Groundwater Basin. Constituents of concern are arsenic, nitrate, PFAS, and fluoride. Wells that had sample results return around or above one-half of the maximum contaminant levels (MCLs), for arsenic (10 ug/L), nitrate (10 mg/L), or fluoride (2 mg/L) or any detection of PFAS are provided in Table 4.

4.1 Water Quality Concerns in the Lower Mesa Subunit

Three wells in the Lower Mesa Subunit have water quality concerns: Wells 138, 140, and 235, all in the Temecula Aquifer and all for arsenic. Of the three, Well 235 is the only well with samples that have exceeded the MCL, but well rehab earlier 2023 has brought levels down to about two-thirds of the MCL. Well 138 has arsenic levels about one-half of the MCL, while Well 140 has levels above one-half, but not exceeding the MCL.

4.2 Water Quality Concerns in the Northern Murietta Valley Subunit

In the Northern Murietta Subunit, the only well with current water quality concerns is Well 156 in the Temecula Aquifer, with samples showing arsenic levels around one-half of the MCL.

4.3 Water Quality Concerns in the Palomar Subunit

The Palomar Subunit contains only one well with water quality concerns, Well 113 in the Temecula Aquifer, with sample results indicating nitrate levels around one-half of the MCL.

4.4 Water Quality Concerns in the Pauba Subunit

Eight (8) wells have water quality concerns in the Pauba Subunit. Well 109, screened in the Young Alluvium and Pauba aquifers, has been detected levels of PFAS in water quality samples and is thus currently offline. Wells 176 and 232, which are screened in both the Temecula and Pauba Aquifers, have nitrate levels around one-half of the MCL. Samples at Wells 120, 203 and 217 have reported arsenic levels around or greater than one-half of the MCL. Well 126 has reported elevated arsenic and fluoride levels, both constituents have exceeded the MCL. Well 143 had a reported arsenic MCL exceedance last year and continues to have elevated arsenic levels as well as measurable PFAS levels. Both Well 126 and Well 143 are on California Division of Drinking Water (DDW) approved blending plans.

4.5 Water Quality Concerns in the Southern Murietta Valley Subunit

One well in the Southern Murietta Valley Subunit has water quality concerns. Well 102 in the Temecula Aquifer has elevated arsenic levels, as well as detectable levels of PFAS. Due to the PFAS detections, this well is currently offline and will remain offline until further notice.

4.6 Water Quality Concerns in the Santa Gertrudis Subunit

Three wells in the Santa Gertrudis Subunit have water quality concerns, all for arsenic: Wells 106 and 108 in both the Pauba and Temecula Aquifers, and Well 240 in the Temecula Aquifer. Well 106 has arsenic

levels above the MCL and is on a DDW approved blending plan, while Well 108 has arsenic levels above one-half of the MCL, but not exceeding it. Well 240 has had sample results indicating arsenic levels above the MCL in the past while recent results indicate levels lower than the MCL, ranging from 3.9-8.7 ug/L where the MCL is 10 ug/L.

4.7 Water Quality Concerns in the Upper Mesa Subunit

The Upper Mesa Subunit has two wells that have returned samples with water quality concerns, both in the Temecula Aquifer. Well 151 has elevated arsenic and fluoride levels exceeding the MCL and is on a DDW approved blending plan. Well 237 has had levels of arsenic above 9 ug/L, approaching but not yet exceeding the MCL of 10 ug/L, while recent samples showed measurements of 5.6-8.4 ug/L.

4.8 Water Quality Concerns in the Wolf Valley Subunit

In the Wolf Valley subunit, there are three wells with water quality concerns, Well 119 in the Pauba Aquifer, and Wells 122 and 211 in the Temecula Aquifer. Well 119 has elevated nitrate levels, but all three wells also have detectable levels of PFAS in groundwater samples. As such, these wells are offline and will remain offline until further notice.

5.0 Recharge and Change in Groundwater Storage

Rancho Water's plans for future groundwater recharge projects, including the expansion of the Upper VDC capacities, and mid-Pauba Recharge Project, were discussed during the November workshop. The effectiveness of current groundwater recharge projects was evaluated by considering various hydrological, hydrogeological, and operational data (Figure 5), including:

- Annual natural groundwater recharge,
- Annual artificial recharge,
- Annual change in groundwater storage,
- Cumulative change in groundwater storage,
- Annual precipitation, and
- Long-term cumulative departure from mean precipitation.

The lower portion of Figure 5 shows annual precipitation, the average precipitation since water year 1935, and the cumulative departure from mean precipitation. The long-term cumulative departure from mean precipitation line indicates hydrologic trends. An increasing trend (a positive slope) indicates a wet period and a declining trend (a negative slope) indicates a dry period. The general hydrologic condition has been dry since 1998, with few wet years (2005, 2011, 2019 and 2023) interspersed.

The latest Cooperative Water Resource Management Agreement (CWRMA) groundwater model Includes data up to water year 2020 (Geoscience, 2023). The upper portion of Figure 5 shows natural recharge, Upper VDC recharge, and other artificial recharge as calculated by the CWRMA model. The dark blue line shows annual change in storage, with the largest increase in storage occurring in the very wet year in 1993. The light blue line shows the cumulative change in storage. Precipitation significantly impacts the change in storage, with storage increasing during periods with multiple consecutive years of average or above average precipitation. Rancho Water has been able to utilize Upper VDC recharge to reduce the rate of decline in storage since 1998. The on-going artificial recharge projects, including the expansion of the Upper VDC capacities, and mid-Pauba Recharge Project, will allow the Rancho to further buffer the change in storage during dry periods.

6.0 References

Geoscience Support Services, Inc. (Geoscience), 2003. Surface and Groundwater Model of the Murrieta-Temecula Groundwater Basin, California. 3 Volumes. January 31, 2003. Prepared for Rancho California Water District.

Geoscience, 2014. Surface and Groundwater Model of the Murrieta-Temecula Groundwater Basin, California, Model Update and Refinement. April 25, 2014. Prepared for Rancho California Water District.

Geoscience, 2023. Update and Enhancement of the CWRMA Groundwater Model. February 2023. Prepared for Rancho California Water District.

FIGURES

GEOSCIENCE

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Lake Skinner

Alson
Wildomar Fault Zone
511 (302)
North
South
Lynch
156
510 (301)
Holiday
House
New Clay
Willard Fault
Murrieta Hot Springs Fault Zone
438
439
445
444
146
144
455
145
450
451
449
309
448
155
446
447
135
453
454
452
491
101
401
121
473
493 (107)
106
240
108
129
464 (213)
460 (136)
461 (142)
463 (206)
496 (204)
506 (208)
113
509 (209)
412
462 (202)
499 (115)
174
500 (116)
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152
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457 (221)
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497 (212)
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507 (207)
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490
498 (224)
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217
231
427
428
429
505
495 (117)
432
433
434
492 (223)
504
119
475
122
211
476
102
405
474
118
235
466 (219)
138
238
410
465 (214)
Santa Gertrudis Subunit
Lower Mesa Subunit
Upper Mesa Subunit
Palomar Subunit
Pauba Valley Subunit
South Mesa Subunit
North Murrieta Valley Subunit
South Murrieta Valley Subunit
Santa Rosa Subunit
Wolf Valley Subunit
Butterfield Subunit
Vail Lake
418
419
503
502
421
501
1
2
3
4
5
6
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8
9
10
11
12
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N
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1.5
3
Miles

EXPLANATION

Well Classification

- Pauba Aquifer Production Well
- Temecula Aquifer Production Well
- Combined Aquifer Production Well
- Temecula Aquifer Production Well Also Used As Index Well
- Temecula Aquifer Index Well
- Pauba Aquifer Index Well
- Monitoring and Non-Production Well
- Western Municipal Water District Well Location
- 233 Well Designation
- RCWD Boundary
- Fault - Confirmed
- Fault - Approximate
- Fault - Concealed
- Hydrologic Subarea Boundary
- (11) Index Well Subarea Number

Hydrologic Subunit Boundary

- Lower Mesa Subunit
- N. Murrieta Valley Subunit
- Palomar Subunit
- Pauba Valley Subunit
- S. Murrieta Valley Subunit
- Santa Gertrudis Subunit
- South Mesa Subunit
- Upper Mesa Subunit
- Wolf Valley Subunit

Jan-26

RANCHO CALIFORNIA WATER DISTRICT WELL LOCATIONS

GEOSCIENCE

RANCHO CALIFORNIA WATER DISTRICT

RECOMMENDED GROUNDWATER PRODUCTION - FISCAL YEAR JULY 1, 2026 THROUGH JUNE 30, 2027

DRAFT

FIGURE 1

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Well 156
575
Well 146
0
Well 144
0
Well 155
0
Well 145
450
Well 309 (134)
2,150
Well 108
500
Well 129
0
Well 509 (209)
0
Well 113
350
Well 506 (201)
0
Well 175
1,000
Well 154
625
Well 135
0
Well 106
125
Well 139
250
Well 237 (215)
300
Well 164 (110)
1,700
Well 174
1,000
Well 161
1,500
Well 240 (205)
800
Well 508 (208)
0
Well 152
2,400
Well 101
0
Well 128
0
Well 140
600
Well 203
500
Well 133
600
Well 121
0
Well 151
425
Well 157
2,000
Well 235
350
Well 138
1,450
Well 232 (111)
750
Well 132
450
Well 238 (216)
400
Well 158
1,850
Well 102
0
Well 118
0
Well 234 (114)
0
Well 236 (210)
1,700
Well 173
1,000
Well 126
500
Well 141
350
Well 172
1,000
Well 120
1,400
Well 109
225
Well 131
800
Well 153
2,000
Well 217
700
Well 143
325
Well 176 (124)
250
Well 149
250
Well 123
200
Well 177
450
Well 130
800
Well 119
0
Well 122
0
Well 211
0

Hydrologic Subunit	Wells with pumping Within Subunit	Wells without pumping Within Subunit	Total Wells Within Subunit	Subunit Total July 2026- June 2027 Recommended Production [Acre-ft]
Upper Mesa	2	3	5	725
Lower Mesa	5	2	7	3,050
Palomar	1	0	1	350
Pauba Valley	29	1	30	27,325
Santa Gertrudis	4	0	4	3,575
N. Murrieta Valley	2	4	6	1,025
S. Murrieta Valley	0	4	4	0
Wolf Valley	0	3	3	0
Total Production =				36,050

EXPLANATION

Well Classification

- Production Wells With Pumping in FY 26/27
- Production Wells Without Pumping in FY 26/27

Well 133
625
Well Designation
Recommended 2026-2027 Production (All values in acre-ft/yr (AFY))
*Total pumping from VDC wells is equal to 14,375 AF. Pumping is distributed based off recommended productions for FY 2026-27.

- RCWD Boundary
- Temecula Valley Groundwater Basin (Source: DWR Bulletin 118, 2016)

Hydrologic Subunit Boundary

- Lower Mesa Subunit
- N. Murrieta Valley Subunit
- Palomar Subunit
- Pauba Valley Subunit
- S. Murrieta Valley Subunit
- Santa Gertrudis Subunit
- South Mesa Subunit
- Upper Mesa Subunit
- Wolf Valley Subunit

N

0 1.5 3
Miles

Jan-26

HYDROLOGIC SUBUNITS AND RECOMMENDED 2026 - 2027 PRODUCTION

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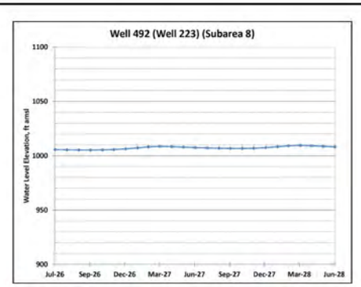
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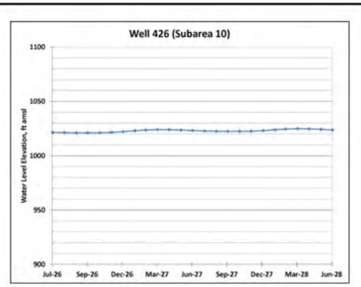
RANCHO CALIFORNIA WATER DISTRICT
RECOMMENDED GROUNDWATER PRODUCTION - FISCAL YEAR JULY 1, 2026 THROUGH JUNE 30, 2027

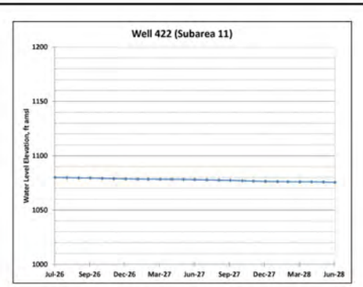
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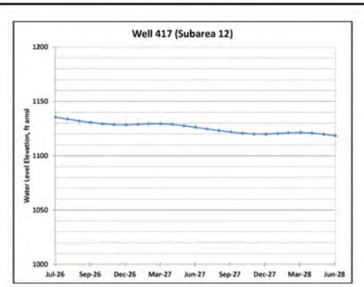
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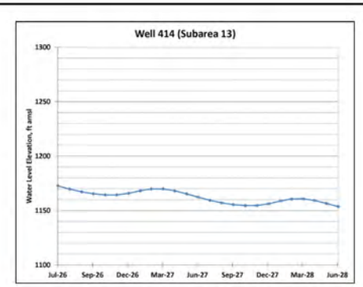
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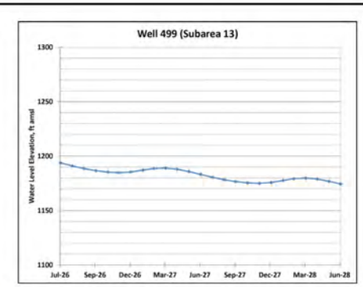


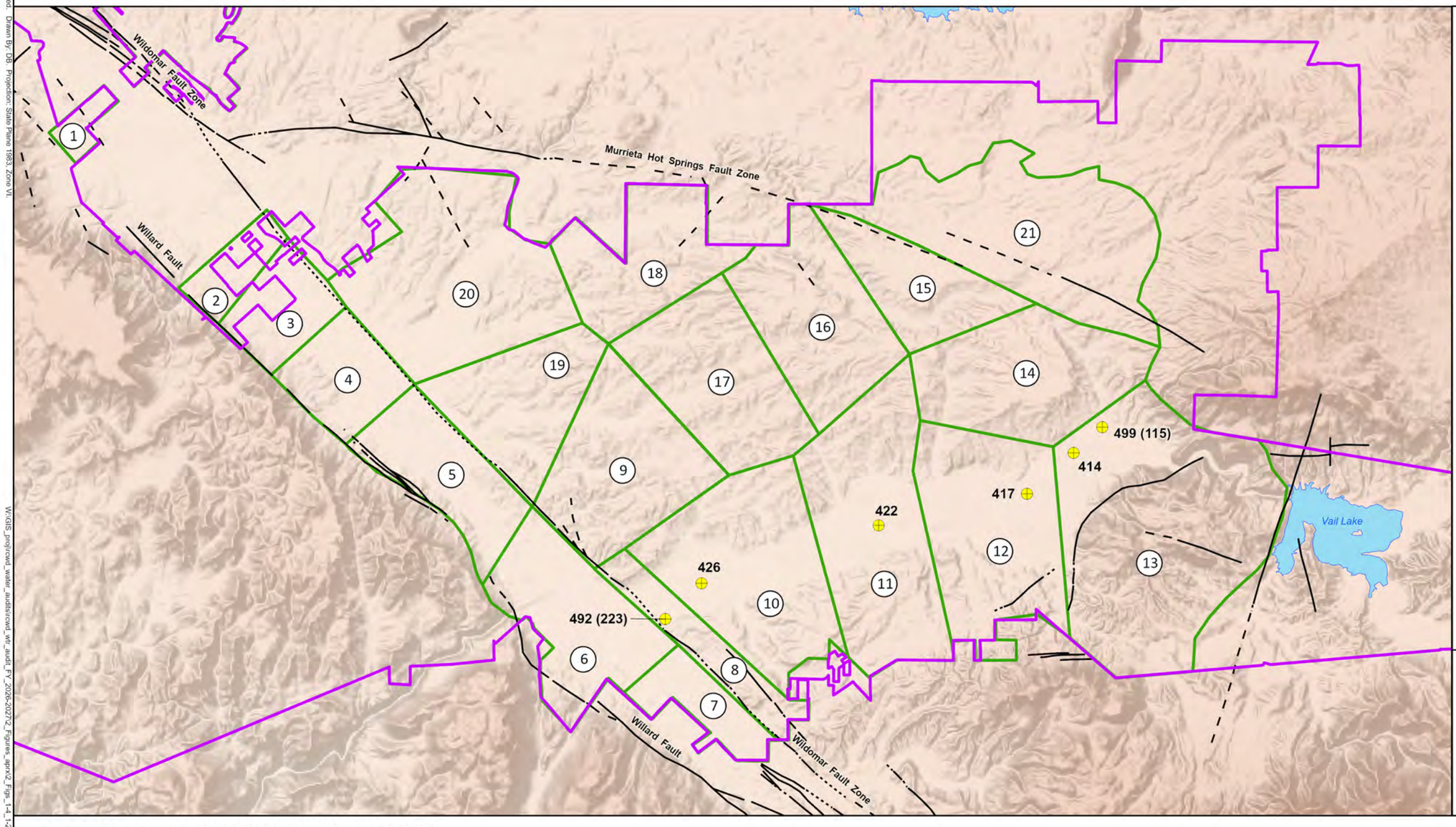












EXPLANATION

- 414 — Pauba Aquifer Index Well
- RCWD Boundary
- Fault - Confirmed
- Fault - Approximate
- Fault - Concealed
- Hydrologic Subarea Boundary
- (11) — Index Well Subarea Number

Note: Model Run Includes
VDC Recharge of 19,500 acre-ft/yr
Purchased Untreated Import Water

N

0 1.5 3

Miles

Jan-26

HYDROGRAPHS OF SELECTED PAUBA WELLS MODEL SIMULATION UNDER RECOMMENDED 2026 - 2027 PUMPING CONDITIONS

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RANCHO CALIFORNIA WATER DISTRICT

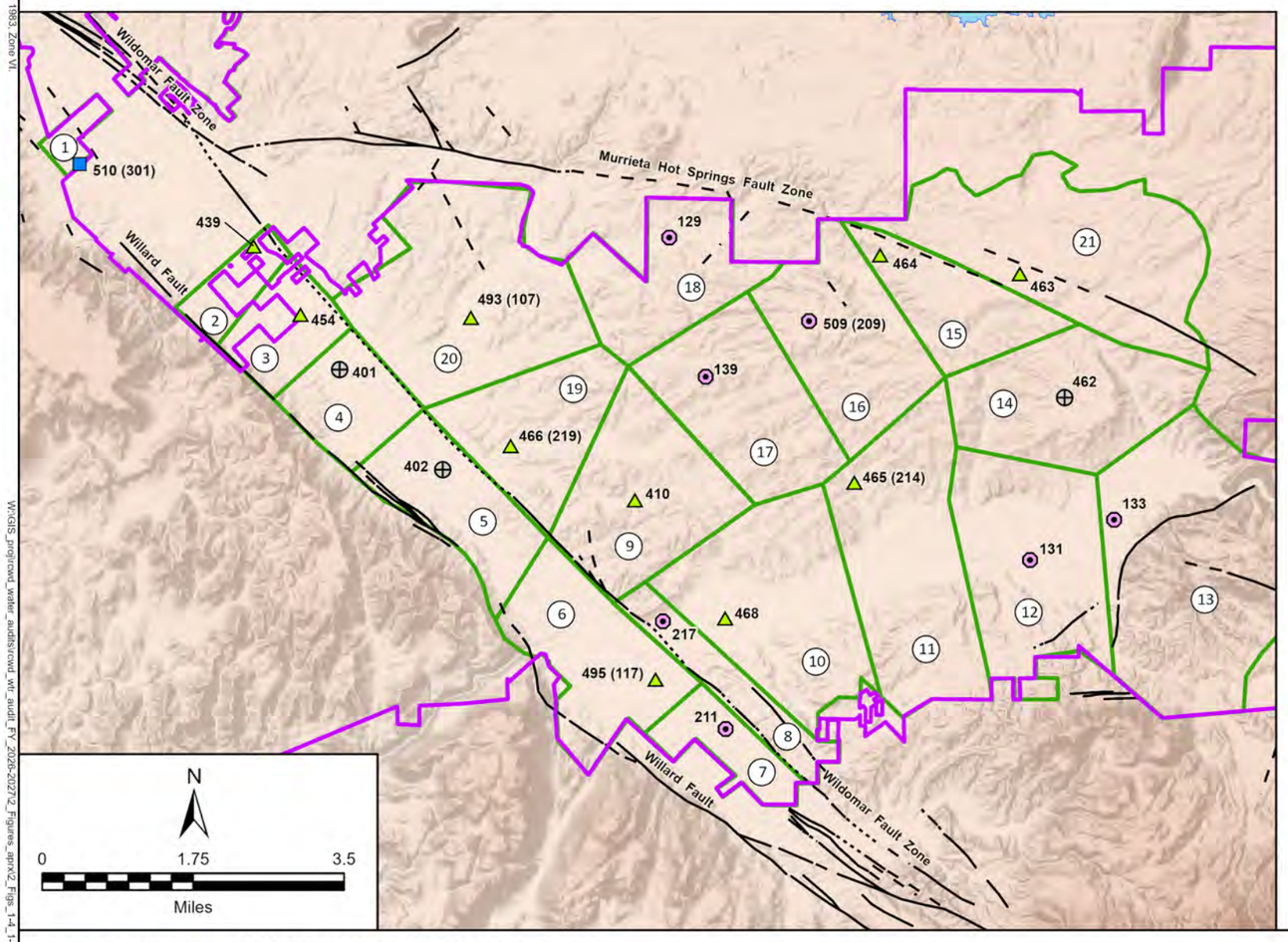
RECOMMENDED GROUNDWATER PRODUCTION - FISCAL YEAR JULY 1, 2026 THROUGH JUNE 30, 2027

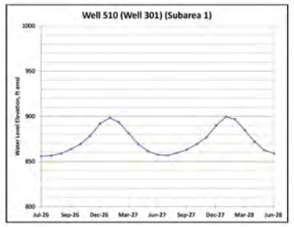
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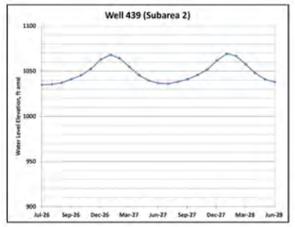
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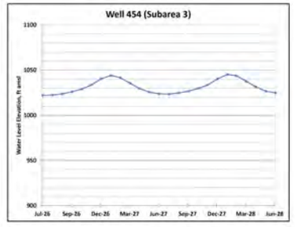
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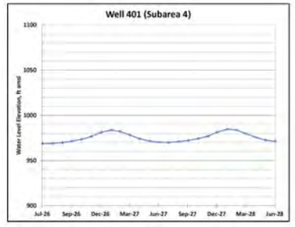
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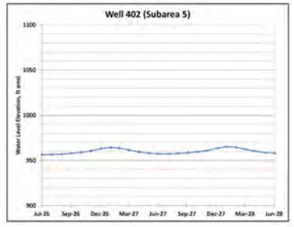


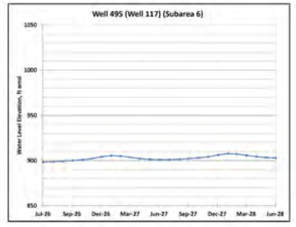


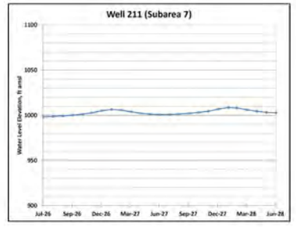


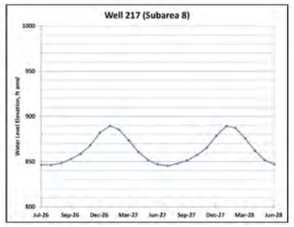


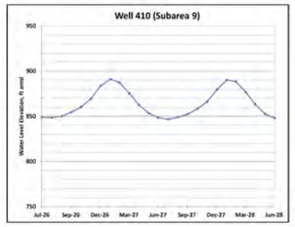


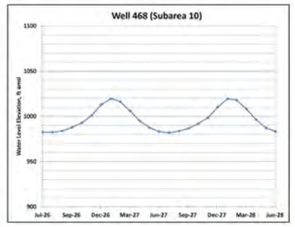


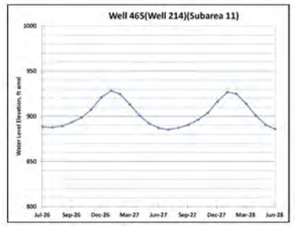


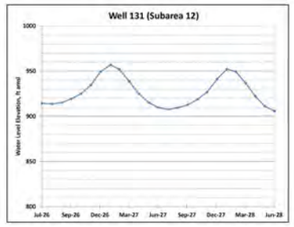


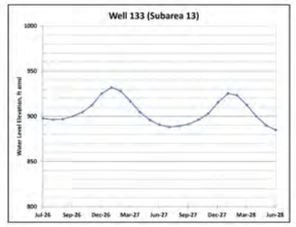


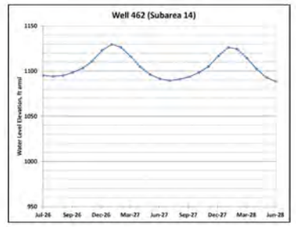


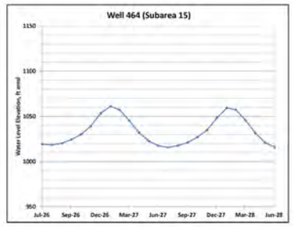


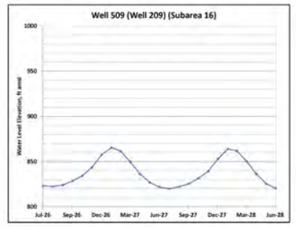


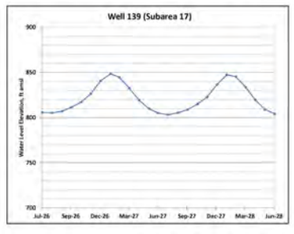


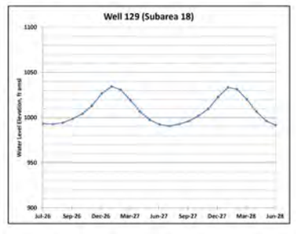


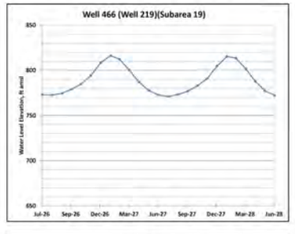


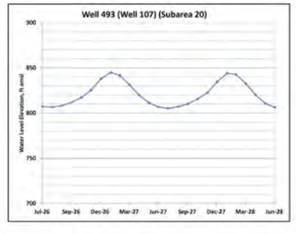


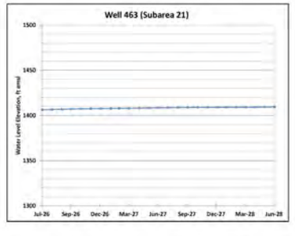












RCWD Boundary

Fault - Confirmed

Fault - Approximate

Fault - Concealed

Hydrologic Subarea Boundary

1 Index Well Subarea Number

217 Well Designation

Temecula Aquifer Production Well Also Used As Index Well

Temecula Aquifer Index Well

Temecula Aquifer Production Well

Note: Model Run Includes
VDC Recharge of 19,500 acre-ft/yr
Purchased Untreated Import Water

Jan-26

HYDROGRAPHS OF SELECTED TEMECULA WELLS MODEL SIMULATION UNDER RECOMMENDED 2026 - 2027 PUMPING CONDITIONS

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RANCHO CALIFORNIA WATER DISTRICT

RECOMMENDED GROUNDWATER PRODUCTION - FISCAL YEAR JULY 1, 2026 THROUGH JUNE 30, 2027

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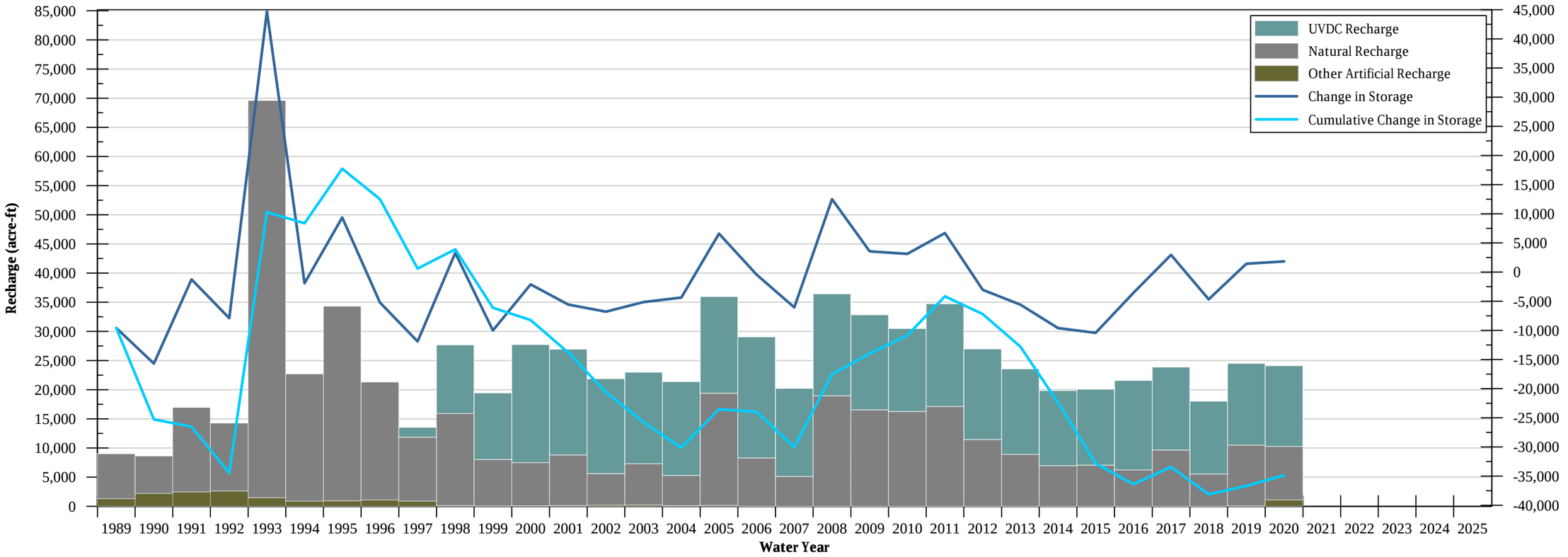
FIGURE 4

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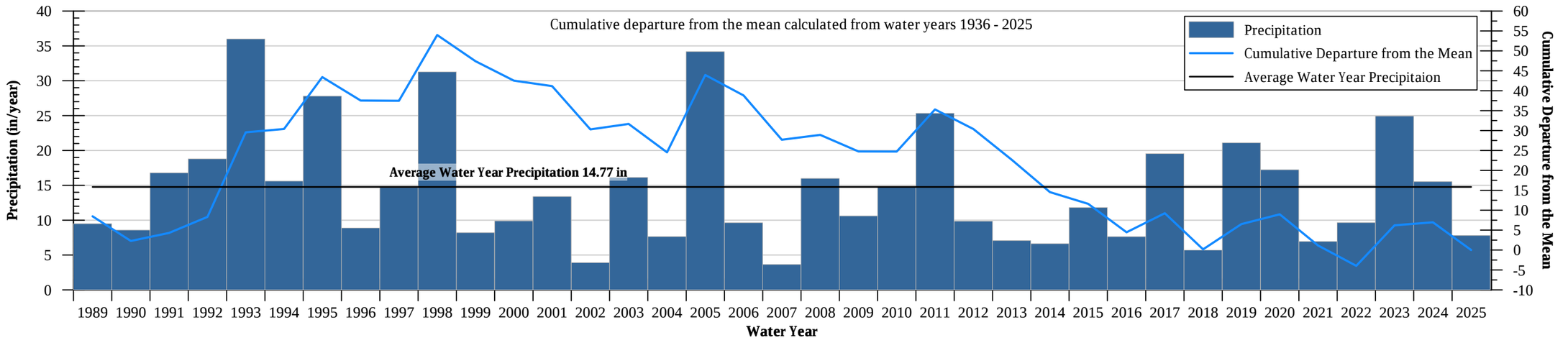
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Figure 5

Recharge and Change in Storage



Precipitation and Cumulative Departure from the Mean



TABLES

DRAFT

Recommended Groundwater Production by Hydrologic Subunit
July 1, 2026 to June 30, 2027

RCWD Well No.	Hydrologic Subunit	Aquifer	July 1, 2026 - June 30, 2027 Recommended Production [Acre-ft]
135	N. Murrieta Valley	Temecula	0
144	N. Murrieta Valley	Temecula	0
145	N. Murrieta Valley	Temecula	450
155	N. Murrieta Valley	Temecula	0
156	N. Murrieta Valley	Temecula	575
		Subtotal	**1,025**
146	N. Murrieta Valley	Pauba	0
		Subtotal	**0**
101	S. Murrieta Valley	Temecula	0
102	S. Murrieta Valley	Temecula	0
118	S. Murrieta Valley	Temecula	0
121	S. Murrieta Valley	Temecula	0
		Subtotal	**0**
122	Wolf Valley	Temecula	0
211	Wolf Valley	Temecula	0
		Subtotal	**0**
119	Wolf Valley	Pauba	0
		Subtotal	**0**
240	Santa Gertrudis	Temecula	800
309	Santa Gertrudis	Temecula	2,150
		Subtotal	**2,950**
106	Santa Gertrudis	Combined	125
108	Santa Gertrudis	Combined	500
		Subtotal	**625**

Table 1

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Recommended Groundwater Production by Hydrologic Subunit
July 1, 2026 to June 30, 2027

RCWD Well No.	Hydrologic Subunit	Aquifer	July 1, 2026 - June 30, 2027 Recommended Production [Acre-ft]
128	Lower Mesa	Temecula	0
129	Lower Mesa	Temecula	0
138	Lower Mesa	Temecula	1,450
139	Lower Mesa	Temecula	250
140	Lower Mesa	Temecula	600
235	Lower Mesa	Temecula	350
238	Lower Mesa	Temecula	400
		Subtotal	**3,050**
151	Upper Mesa	Temecula	425
201	Upper Mesa	Temecula	0
208	Upper Mesa	Temecula	0
209	Upper Mesa	Temecula	0
237	Upper Mesa	Temecula	300
		Subtotal	**725**
120	Pauba	Temecula	1,400
126	Pauba	Temecula	500
130	Pauba	Temecula	800
131	Pauba	Temecula	800
133	Pauba	Temecula	600
143	Pauba	Temecula	325
149	Pauba	Temecula	250
203	Pauba	Temecula	500
217	Pauba	Temecula	700
		Subtotal	**5,875**

Table 1

DRAFT

Recommended Groundwater Production by Hydrologic Subunit
July 1, 2026 to June 30, 2027

RCWD Well No.	Hydrologic Subunit	Aquifer	July 1, 2026 - June 30, 2027 Recommended Production [Acre-ft]
109	Pauba	Pauba	225
141	Pauba	Pauba	350
152*	Pauba	Pauba	2,400
153*	Pauba	Pauba	2,000
154*	Pauba	Pauba	625
157*	Pauba	Pauba	2,000
158*	Pauba	Pauba	1,850
161*	Pauba	Pauba	1,500
164	Pauba	Pauba	1,700
172*	Pauba	Pauba	1,000
173*	Pauba	Pauba	1,000
174*	Pauba	Pauba	1,000
175*	Pauba	Pauba	1,000
233	Pauba	Pauba	1,000
236	Pauba	Pauba	1,700
		Subtotal	**19,350**
123	Pauba	Combined	200
132	Pauba	Combined	450
176	Pauba	Combined	250
177	Pauba	Combined	450
232	Pauba	Combined	750
234	Pauba	Combined	0
		Subtotal	**2,100**
113	Palomar	Temecula	350
		Subtotal	**350**
		Total Recommended Production	**36,050**

Table 1

*Total pumping from VDC wells is equal to 14,375 AF. Pumping is distributed based off recommended productions for FY 2026-27.

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Recommended Groundwater Production by Well Number
July 1, 2026 to June 30, 2027

RCWD Well No.	Hydrologic Subunit	Aquifer	July 2026 - June 2027 Recommended Production [Acre-ft]	Short- and Long-Term Hydrographs Located in Appendix A Page Number
101	S. Murrieta Valley	Temecula	0	A-1
102	S. Murrieta Valley	Temecula	0	A-2
106	Santa Gertrudis	Combined	125	A-3
108	Santa Gertrudis	Combined	500	A-4
109	Pauba	Pauba	225	A-5
113	Palomar	Temecula	350	A-6
118	S. Murrieta Valley	Temecula	0	A-7
119	Wolf Valley	Pauba	0	A-8
120	Pauba	Temecula	1,400	A-9
121	S. Murrieta Valley	Temecula	0	A-10
122	Wolf Valley	Temecula	0	A-11
123	Pauba	Combined	200	A-12
126	Pauba	Temecula	500	A-13
128	Lower Mesa	Temecula	0	A-14
129	Lower Mesa	Temecula	0	A-15
130	Pauba	Temecula	800	A-16
131	Pauba	Temecula	800	A-17
132	Pauba	Combined	450	A-18
133	Pauba	Temecula	600	A-19
135	N. Murrieta Valley	Temecula	0	A-20
138	Lower Mesa	Temecula	1,450	A-21
139	Lower Mesa	Temecula	250	A-22
140	Lower Mesa	Temecula	600	A-23
141	Pauba	Pauba	350	A-24
143	Pauba	Temecula	325	A-25
144	N. Murrieta Valley	Temecula	0	A-26

Table 2

DRAFT

Recommended Groundwater Production by Well Number
July 1, 2026 to June 30, 2027

RCWD Well No.	Hydrologic Subunit	Aquifer	July 2026 - June 2027 Recommended Production [Acre-ft]	Short- and Long-Term Hydrographs Located in Appendix A Page Number
145	N. Murrieta Valley	Temecula	450	A-27
146	N. Murrieta Valley	Pauba	0	A-28
149	Pauba	Temecula	250	A-29
151	Upper Mesa	Temecula	425	A-30
152*	Pauba	Pauba	2,400	A-31
153*	Pauba	Pauba	2,000	A-32
154*	Pauba	Pauba	625	A-33
155	N. Murrieta Valley	Temecula	0	A-34
156	N. Murrieta Valley	Temecula	575	A-35
157*	Pauba	Pauba	2,000	A-36
158*	Pauba	Pauba	1,850	A-37
161*	Pauba	Pauba	1,500	A-38
164	Pauba	Pauba	1,700	A-39
172*	Pauba	Pauba	1,000	-
173*	Pauba	Pauba	1,000	-
174*	Pauba	Pauba	1,000	-
175*	Pauba	Pauba	1,000	-
176	Pauba	Combined	250	A-40
177	Pauba	Combined	450	A-41
201	Upper Mesa	Temecula	0	A-42
203	Pauba	Temecula	500	A-43
208	Upper Mesa	Temecula	0	A-44
209	Upper Mesa	Temecula	0	A-45
211	Wolf Valley	Temecula	0	A-46
217	Pauba	Temecula	700	A-47
232	Pauba	Combined	750	A-48

Table 2

DRAFT

Recommended Groundwater Production by Well Number
July 1, 2026 to June 30, 2027

RCWD Well No.	Hydrologic Subunit	Aquifer	July 2026 - June 2027 Recommended Production [Acre-ft]	Short- and Long-Term Hydrographs Located in Appendix A Page Number
233	Pauba	Pauba	1,000	A-49
234	Pauba	Combined	0	A-50
235	Lower Mesa	Temecula	350	A-51
236	Pauba	Pauba	1,700	A-52
237	Upper Mesa	Temecula	300	A-53
238	Lower Mesa	Temecula	400	A-54
240	Santa Gertrudis	Temecula	800	A-55
309	Santa Gertrudis	Temecula	2,150	A-56
		Total Recommended Production	**36,050**	**-**

*Total pumping from VDC wells is equal to 14,375 AF. Pumping is distributed based off recommended productions for FY 2026-27.

Table 2

Summary of Model Simulated Change in Water Levels for Pauba and Temecula Aquifer Wells Under Recommended 2026-27 Pumping Conditions

Hydrologic Subarea No.[1]	Hydrologic Subunit	Aquifer	RCWD Well No.[1]	Predicted Change in Water Level July 2026 - June 2028 [ft]	
				Scenario 1	Scenario 2
13	Pauba	Pauba	499	-17	-17
13	Pauba	Pauba	414	-17	-17
12	Pauba	Pauba	417	-15	-15
11	Pauba	Pauba	422	-4	-4
10	Pauba	Pauba	426	2	2
8	Pauba	Pauba	492	3	3
12	Pauba	Temecula	131	-8	-8
13	Pauba	Temecula	133	-11	-11
15	Upper Mesa	Temecula	464	-3	-3
14	Upper Mesa	Temecula	462	-6	-6
16	Upper Mesa	Temecula	509	-2	-2
19	Lower Mesa	Temecula	466	-1	-1
17	Lower Mesa	Temecula	139	-1	-1
11	Upper Mesa	Temecula	465	-2	-2
6	Wolf Valley	Temecula	495	5	3
9	Lower Mesa	Temecula	410	-1	-1
20	Santa Gertrudis	Temecula	493	-1	-1
8	Pauba	Temecula	217	1	1
10	Pauba	Temecula	468	1	1
5	S. Murrieta Valley	Temecula	402	2	1
4	S. Murrieta Valley	Temecula	401	3	2
2	N. Murrieta Valley	Temecula	439	3	3
1	N. Murrieta Valley	Temecula	510	3	3
3	N. Murrieta Valley	Temecula	454	3	3
21	Palomar	Temecula	463	3	3
7	Wolf Valley	Temecula	211	4	3
18	Lower Mesa	Temecula	129	-1	-1

Note:
1. See Figures 3 and 4 for locations of hydrologic subareas and RCWD wells.
2. Based on average precipitation for the period of 2011-2018.

DRAFT

Summary of Groundwater Quality Concerns

Aquifer	Hydrologic Subunit	Well No.	Constituent	Over MCL	Notes
Temecula	Lower Mesa	138	Arsenic	N	Around 1/2 the MCL
Temecula	Lower Mesa	140	Arsenic	N	Above 1/2 the MCL
Temecula	Lower Mesa	235	Arsenic	Y	Exceeded the MCL on two different occasions. Averaging around 2/3 the MCL
Combined	N. Murrieta Valley	156	Arsenic	N	Around 1/2 the MCL
Temecula	Palomar	113	Nitrate	N	Around 1/2 the MCL
Pauba/YA	Pauba	109	PFAS	Y	PFOA and PFOS. On DDW approved blending plan. Currently offline.
Temecula	Pauba	120	Arsenic	N	Around 2/3 the MCL
Temecula	Pauba	126	Arsenic/Fluoride	Y	On DDW approved blending plan
Temecula	Pauba	143	Arsenic/PFAS	Y	Exceeded the MCL for arsenic last year. On approved blending plan
Combined	Pauba	176	Nitrate	N	Around 1/2 the MCL
Temecula	Pauba	203	Arsenic	N	Around 2/3 the MCL
Combined	Pauba	217	Arsenic	N	Around 2/3 the MCL
Combined	Pauba	232	Nitrate	N	Around 1/2 the MCL
Temecula	S. Murrieta Valley	102	Arsenic/PFAS	N/NA	This well is offline due to PFAS detections and will remain offline until further notice
Combined	Santa Gertrudis	106	Arsenic	Y	On DDW approved blending plan
Combined	Santa Gertrudis	108	Arsenic	N	Above 1/2 the MCL
Temecula	Santa Gertrudis	240	Arsenic	N	3.9 ug/L - 8.7 ug/L
Temecula	Upper Mesa	151	Arsenic/Fluoride	Y	On DDW approved blending plan
Temecula	Upper Mesa	237	Arsenic	N	Recent results were 5.6 - 8.4 ug/L
Pauba	Wolf Valley	119	Nitrate/PFAS	NA	This well is offline due to PFAS detections and will remain offline until further notice
Temecula	Wolf Valley	122	PFAS	NA	This well is offline due to PFAS detections and will remain offline until further notice
Temecula	Wolf Valley	211	PFAS	NA	This well is offline due to PFAS detections and will remain offline until further notice

Table 4

APPENDIX A

Long-Term Hydrographs and Production
January 1981 to September 2025

GEOSCIENCE

APPENDIX A

Trend Analysis for Changing Ground Water Levels and Production

January 1981 to September 2025

CONTENTS

RCWD Well No. 101 ..... A-1
RCWD Well No. 102 ..... A-2
RCWD Well No. 106 ..... A-3
RCWD Well No. 108 ..... A-4
RCWD Well No. 109 ..... A-5
RCWD Well No. 113 ..... A-6
RCWD Well No. 118 ..... A-7
RCWD Well No. 119 ..... A-8
RCWD Well No. 120 ..... A-9
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RCWD Well No. 123 ..... A-12
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RCWD Well No. 133 ..... A-19
RCWD Well No. 135 ..... A-20

APPENDIX A CONTENTS

(Continued)

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RCWD Well No. 139 ..... A-22
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RCWD Well No. 141 ..... A-24
RCWD Well No. 143 ..... A-25
RCWD Well No. 144 ..... A-26
RCWD Well No. 145 ..... A-27
RCWD Well No. 146 ..... A-28
RCWD Well No. 149 ..... A-29
RCWD Well No. 151 ..... A-30
RCWD Well No. 152 ..... A-31
RCWD Well No. 153 ..... A-32
RCWD Well No. 154 ..... A-33
RCWD Well No. 155 ..... A-34
RCWD Well No. 156 ..... A-35
RCWD Well No. 157 ..... A-36
RCWD Well No. 158 ..... A-37
RCWD Well No. 161 ..... A-38
RCWD Well No. 164 (old 110) A-39
RCWD Well No. 176 (old 124) A-40
RCWD Well No. 177 ..... A-41
RCWD Well No. 201 (now 506) A-42
RCWD Well No. 203 ..... A-43
RCWD Well No. 208 (now 508) A-44
RCWD Well No. 209 (now 509) A-45
RCWD Well No. 211 ..... A-46

APPENDIX A CONTENTS

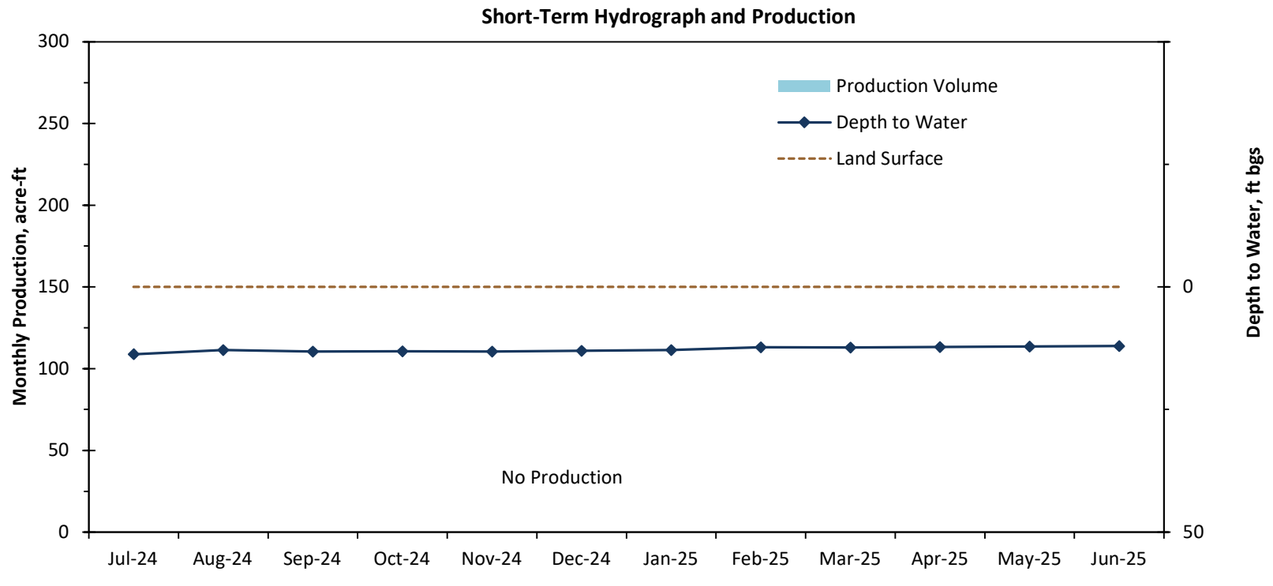
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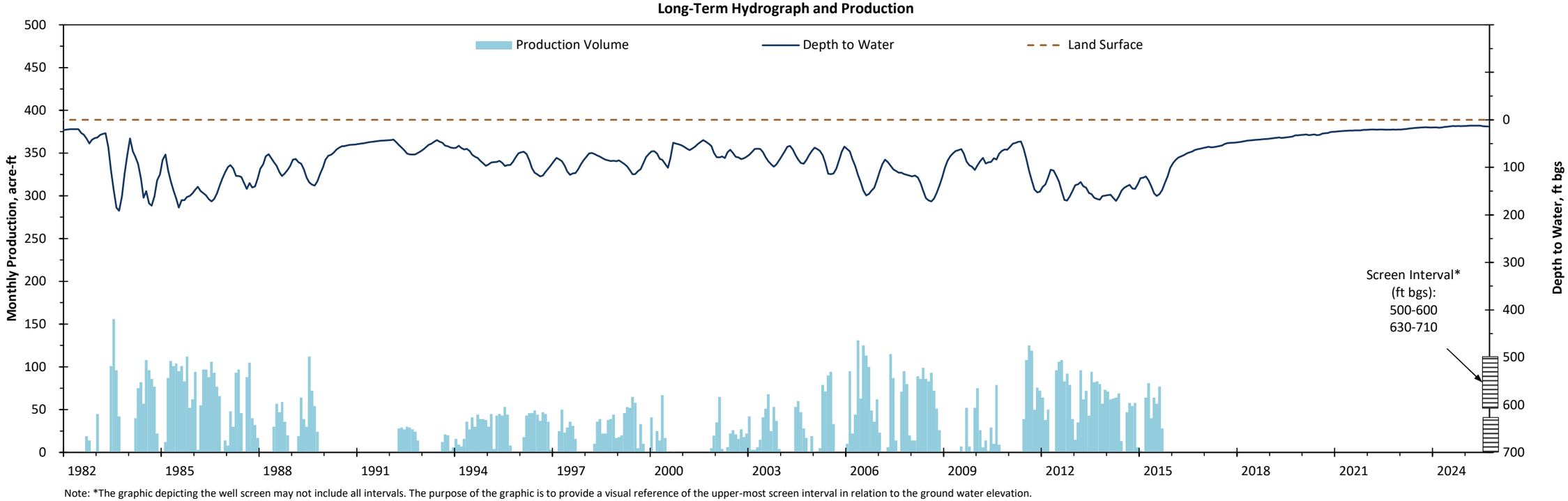
RCWD Well No. 217 ..... A-47
RCWD Well No. 232 (old 111) A-48
RCWD Well No. 233 (old 112) A-49
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RCWD Well No. 235 ..... A-51
RCWD Well No. 236 (old 210) A-52
RCWD Well No. 237 (old 215) A-53
RCWD Well No. 238 (old 216) A-54
RCWD Well No. 240 (old 205) A-55
RCWD Well No. 309 ..... A-56

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 101

Well Performance and Recommended Production

Hydrolgic Subarea	4
Hydrolgic Subunit	South Murrieta Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	NA
Static Submergence [ft]	515
Comments	Currently offline; requires chlorine treatment; high iron & manganese, in the process of abandoning this well
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**



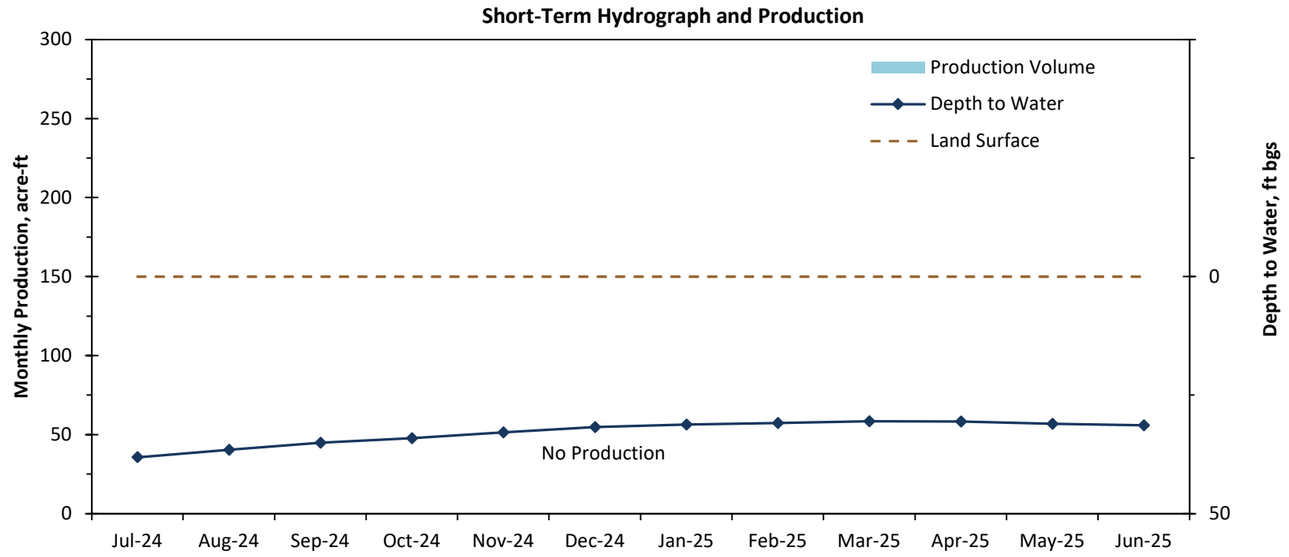


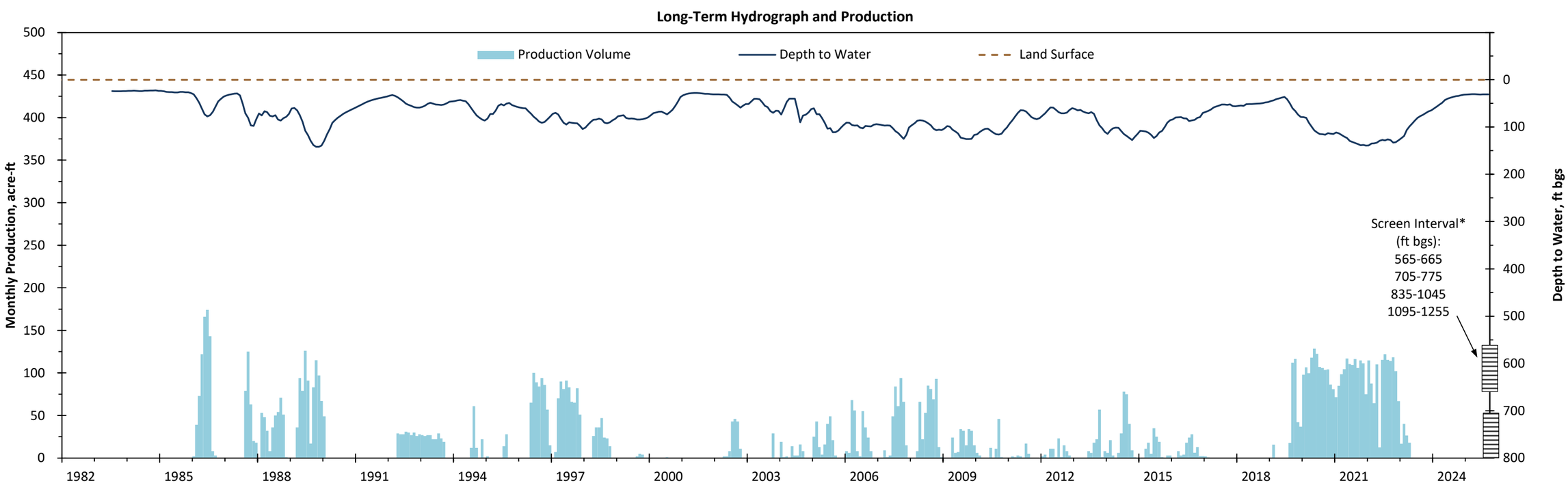
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 102

Well Performance and Recommended Production

Hydrolgic Subarea	5
Hydrolgic Subunit	South Murrieta Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	900
Static Submergence [ft]	510
Comments	Constituent: Arsenic/PFAS Over MCL?: N/NA Offline due to PFAS detections and will remain offline until further notice
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**





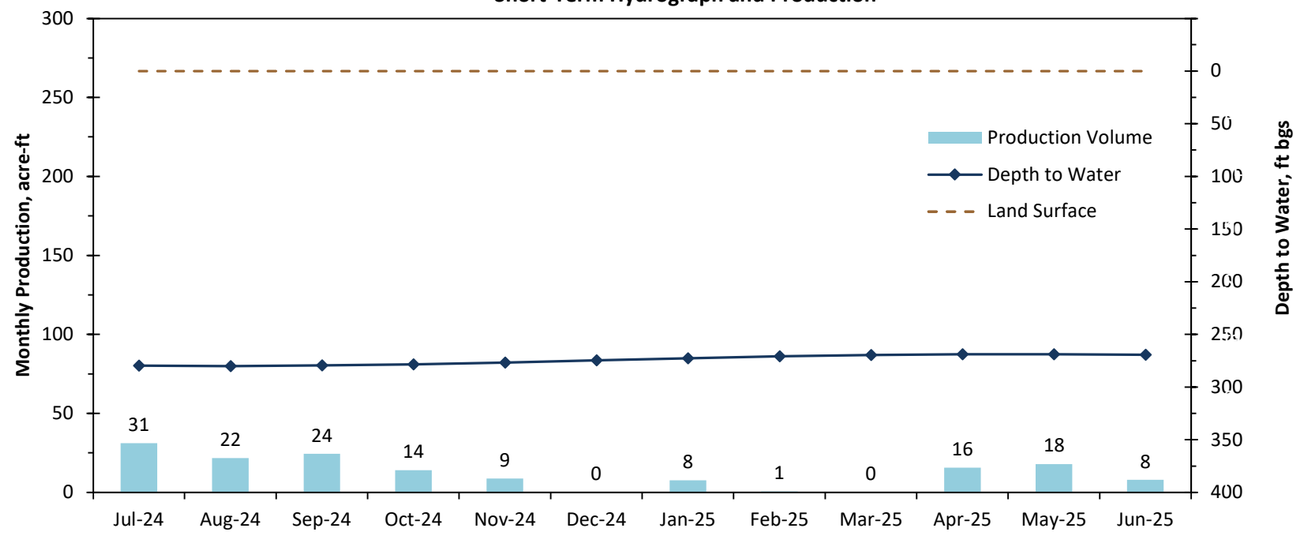
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 106

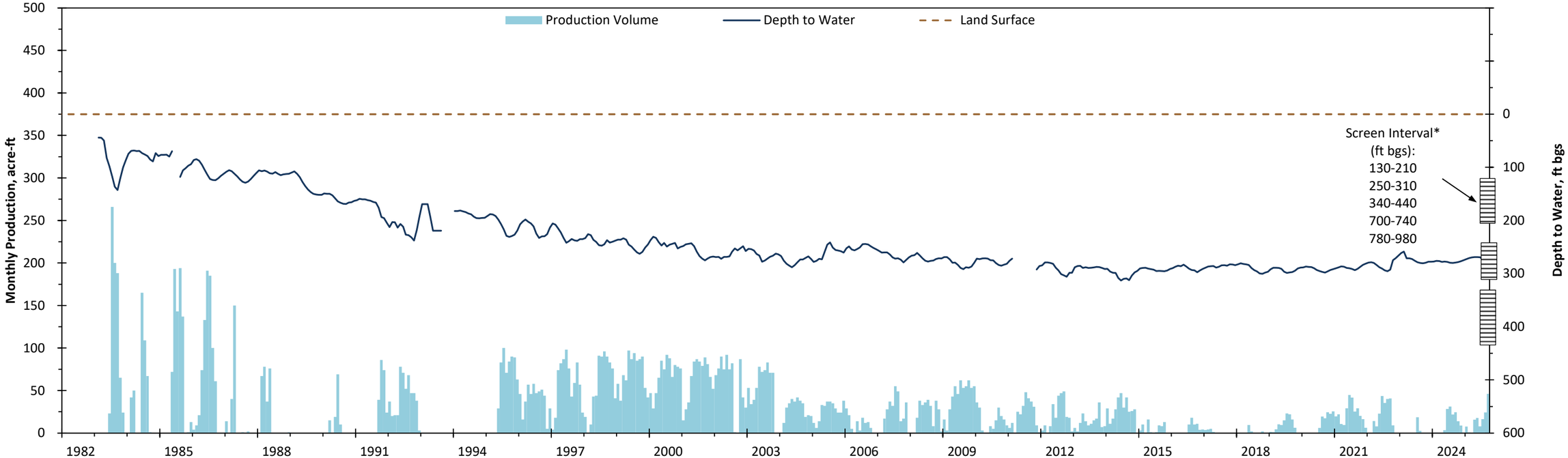
Well Performance and Recommended Production

Hydrolgic Subarea	20
Hydrolgic Subunit	Santa Gertrudis
Aquifer	Combined
Instantaneous Yield [gpm]	520
Static Submergence [ft]	812
Comments	Constituent: Arsenic Over MCL?: Y on DDW approved blending plan
Recommended Production [acre-ft] Jul-2025 to Jun-2026	150
Actual Production [acre-ft] Jul-2024 to Jun-2025	150
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**125**

Short-Term Hydrograph and Production



Long-Term Hydrograph and Production

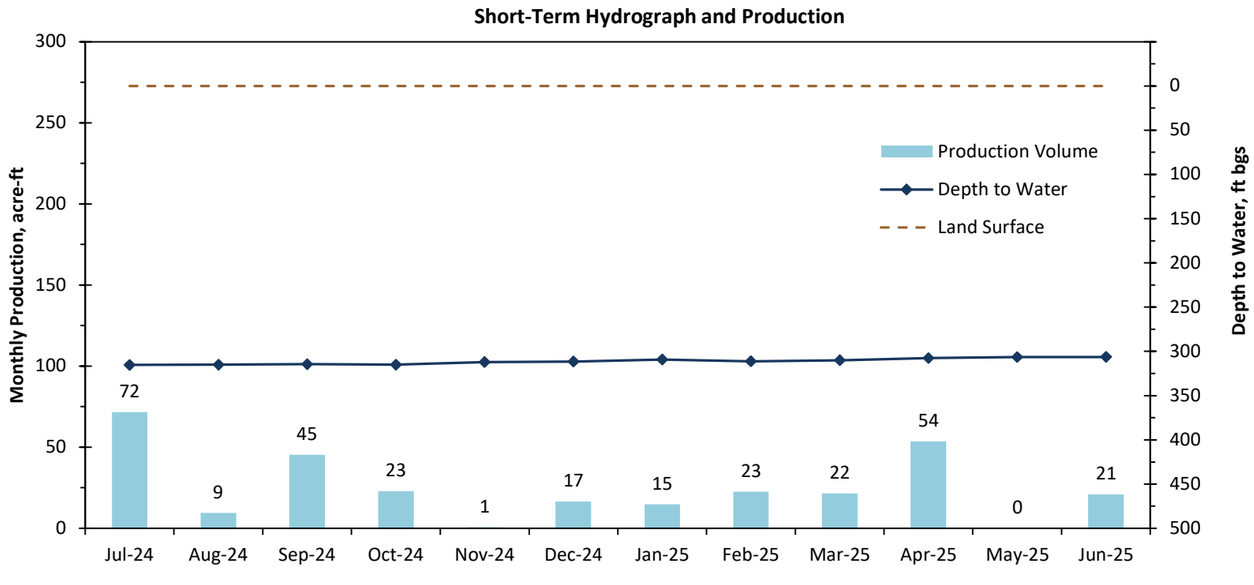


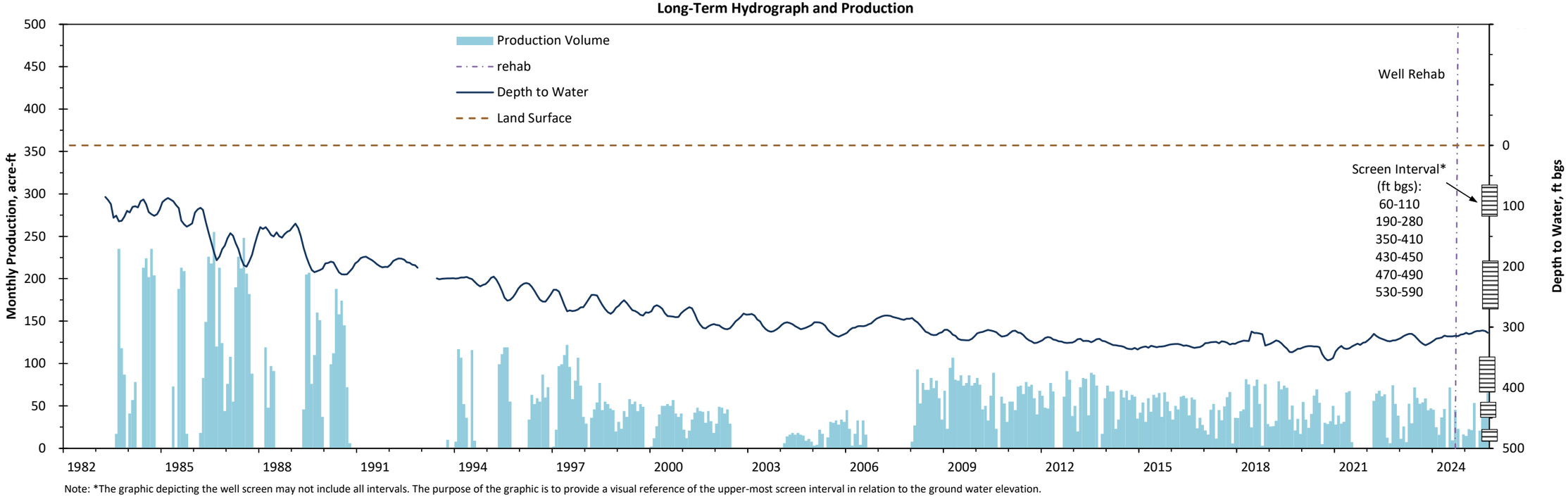
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 108

Well Performance and Recommended Production

Hydrolgic Subarea	20
Hydrolgic Subunit	Santa Gertrudis
Aquifer	Combined
Instantaneous Yield [gpm]	550
Static Submergence [ft]	640
Comments	Constituent: Arsenic Over MCL?: N above 1/2 the MCL, Current only 60% ontime (TOU), projection increased from 400 AFY to 500 AFY (review modeling results); screen interval partially dewatered; zone isolation 2013; currently being rehabbed middle and upper screened intervals
Recommended Production [acre-ft] Jul-2025 to Jun-2026	400
Actual Production [acre-ft] Jul-2024 to Jun-2025	300
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**500**





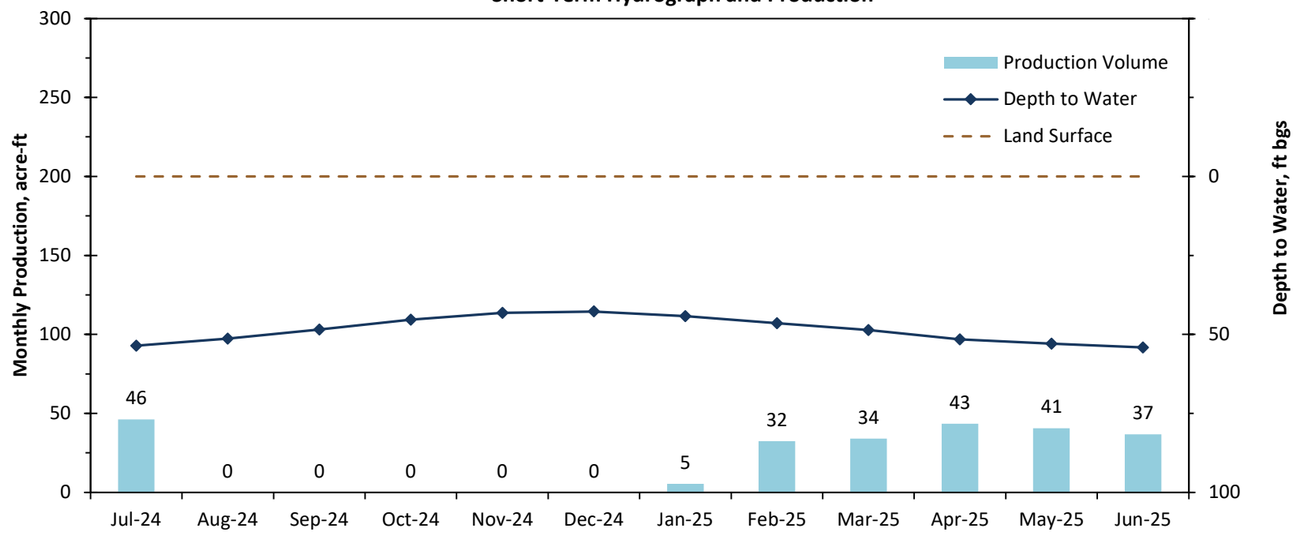
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 109

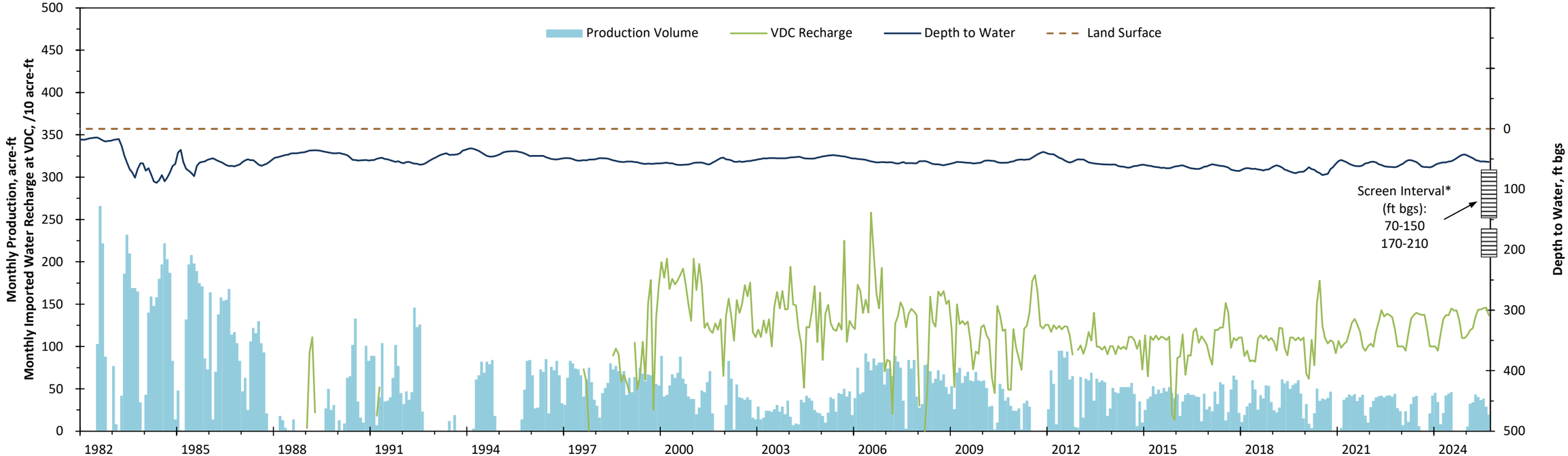
Well Performance and Recommended Production

Hydrolgic Subarea	10
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	350
Static Submergence [ft]	276
Comments	Constituent: PFAS Over MCL?: Y PFOA and PFOS. On DDW approved blending plan. Currently offline.
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	239
Percent of Total Production from Qyal	84%
Production from Qyal [acre-ft]	201
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**225**

Short-Term Hydrograph and Production



Long-Term Hydrograph and Production



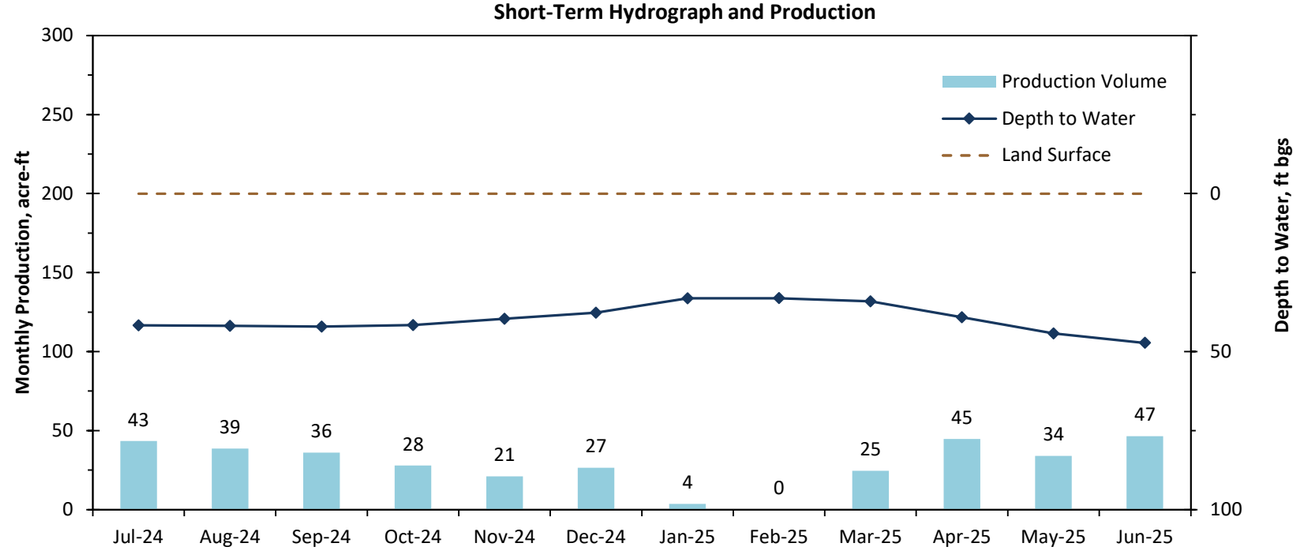
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 113

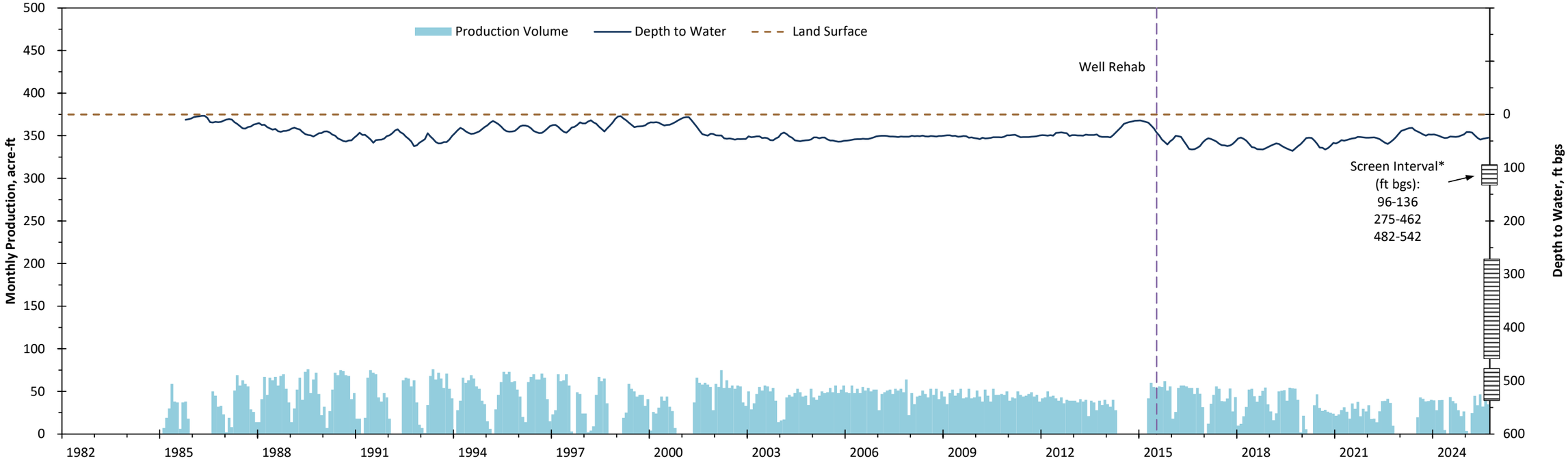
Well Performance and Recommended Production

Hydrolgic Subarea	21
Hydrolgic Subunit	Palomar
Aquifer	Temecula
Instantaneous Yield [gpm]	420
Static Submergence [ft]	397
Comments	Constituent: Nitrate Over MCL?: N around 1/2 the MCL, Possible future replacement; rehab in 2015
Recommended Production [acre-ft] Jul-2025 to Jun-2026	350
Actual Production [acre-ft] Jul-2024 to Jun-2025	347
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**350**

Short-Term Hydrograph and Production



Long-Term Hydrograph and Production



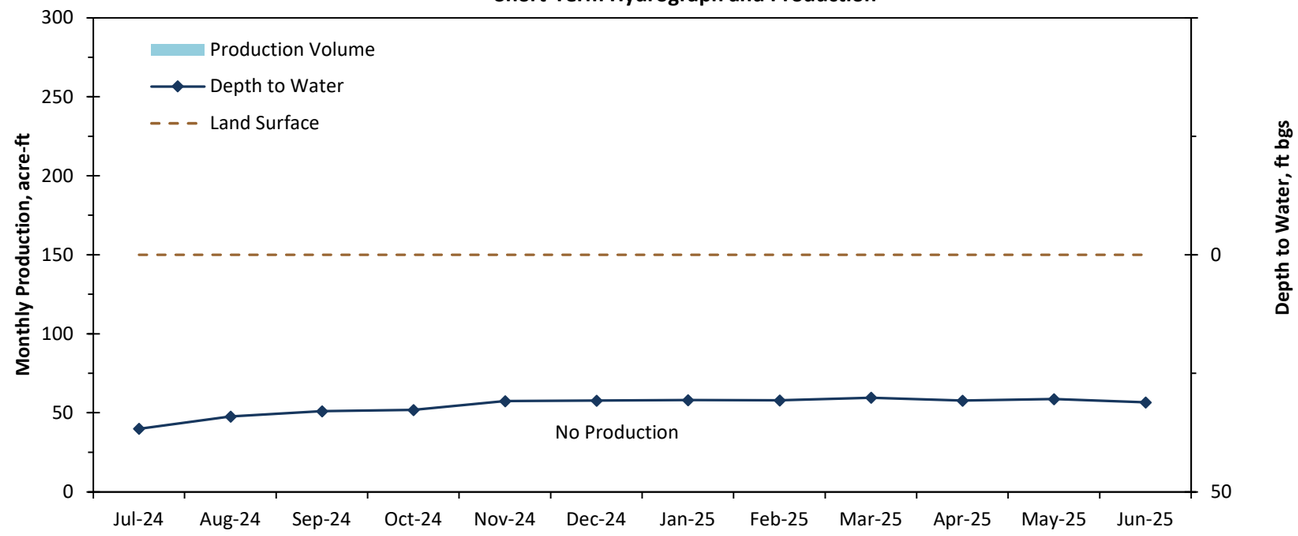
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 118

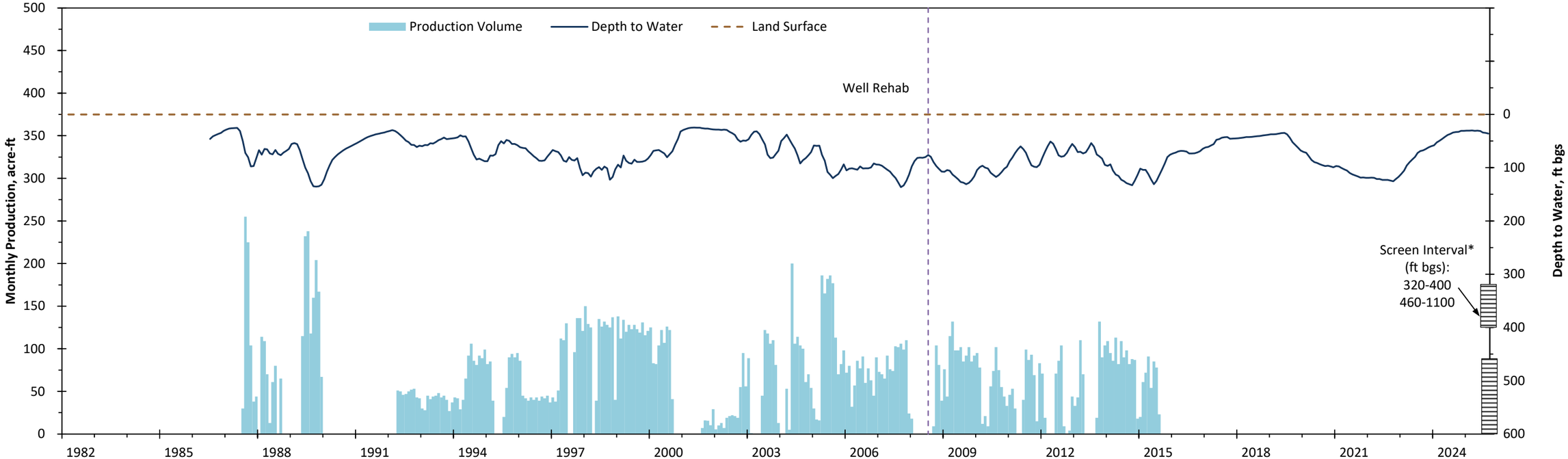
Well Performance and Recommended Production

Hydrolgic Subarea	5
Hydrolgic Subunit	South Murrieta Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	0
Static Submergence [ft]	540
Comments	Currently offline; high iron & manganese; rehabbed in 2008
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**

Short-Term Hydrograph and Production



Long-Term Hydrograph and Production



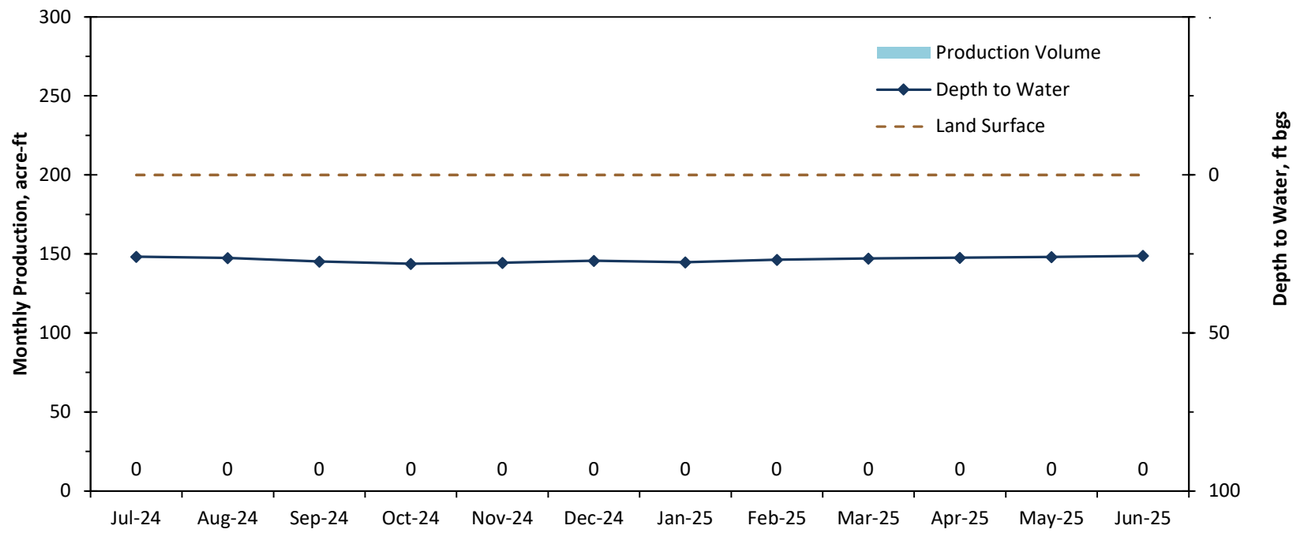
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 119

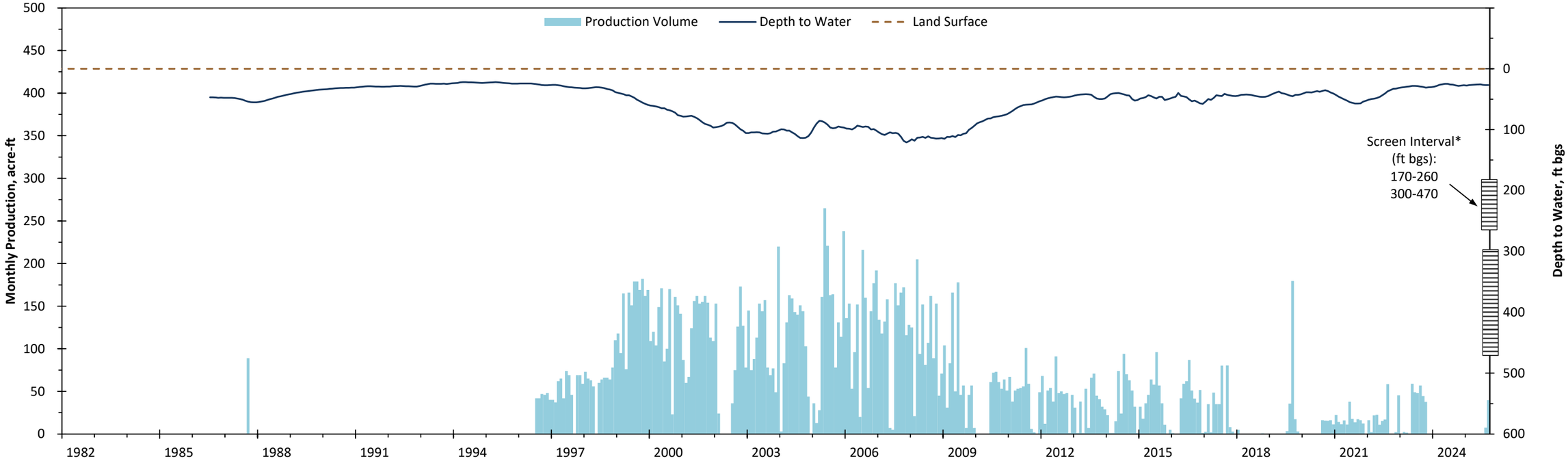
Well Performance and Recommended Production

Hydrolgic Subarea	6
Hydrolgic Subunit	Wolf Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	1,650
Static Submergence [ft]	509
Comments	Constituent: Nitrate/PFAS Over MCL?: NA Offline due to PFAS detections and will remain offline until further notice
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**

Short-Term Hydrograph and Production



Long-Term Hydrograph and Production



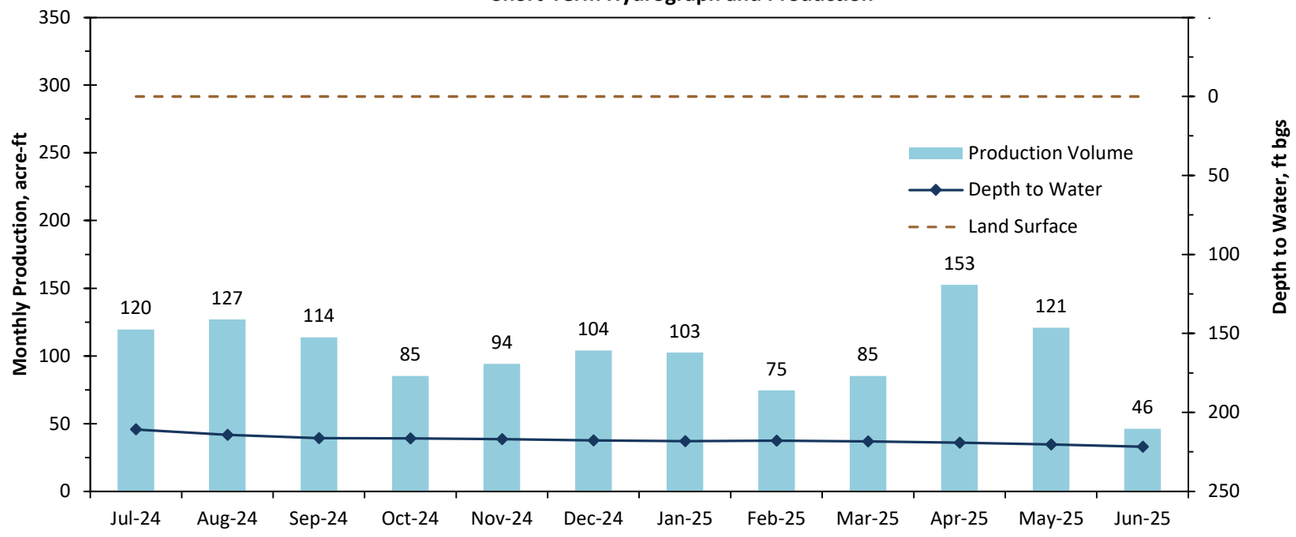
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 120

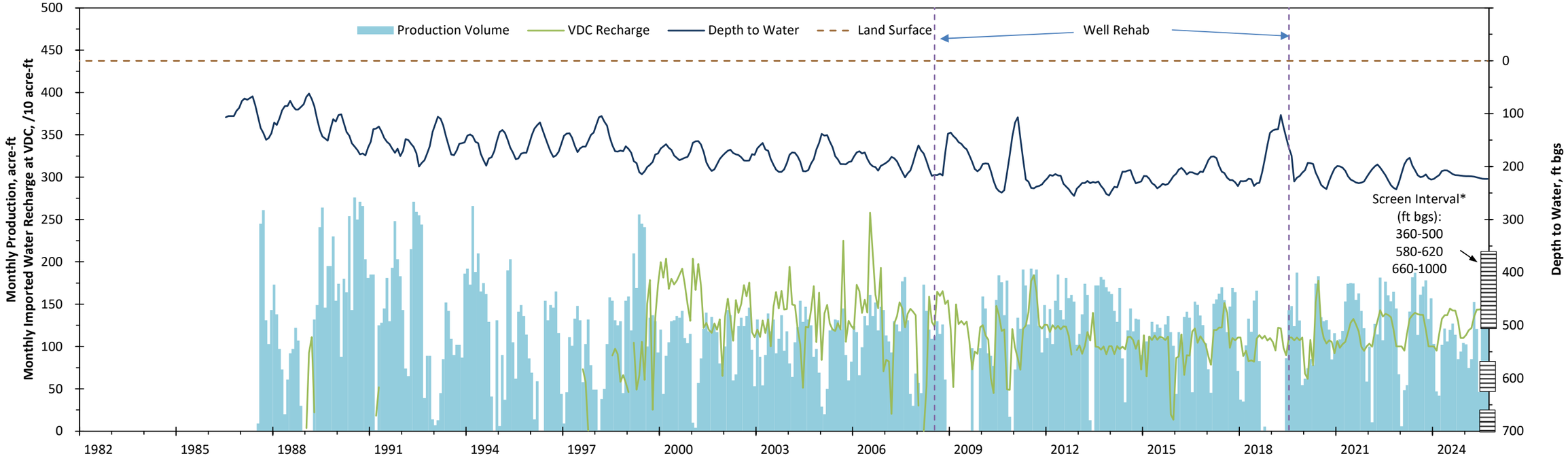
Well Performance and Recommended Production

Hydrolgic Subarea	10
Hydrolgic Subunit	Pauba Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	1,440
Static Submergence [ft]	627
Comments	Constituent: Arsenic Over MCL?: N around 2/3 the MCL, Pump removed late-2018; bacteria issue; water level affected by Well No. 143; rehabbed in 2008, 2019
Recommended Production [acre-ft] Jul-2025 to Jun-2026	1,400
Actual Production [acre-ft] Jul-2024 to Jun-2025	1,226
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**1,400**

Short-Term Hydrograph and Production



Long-Term Hydrograph and Production

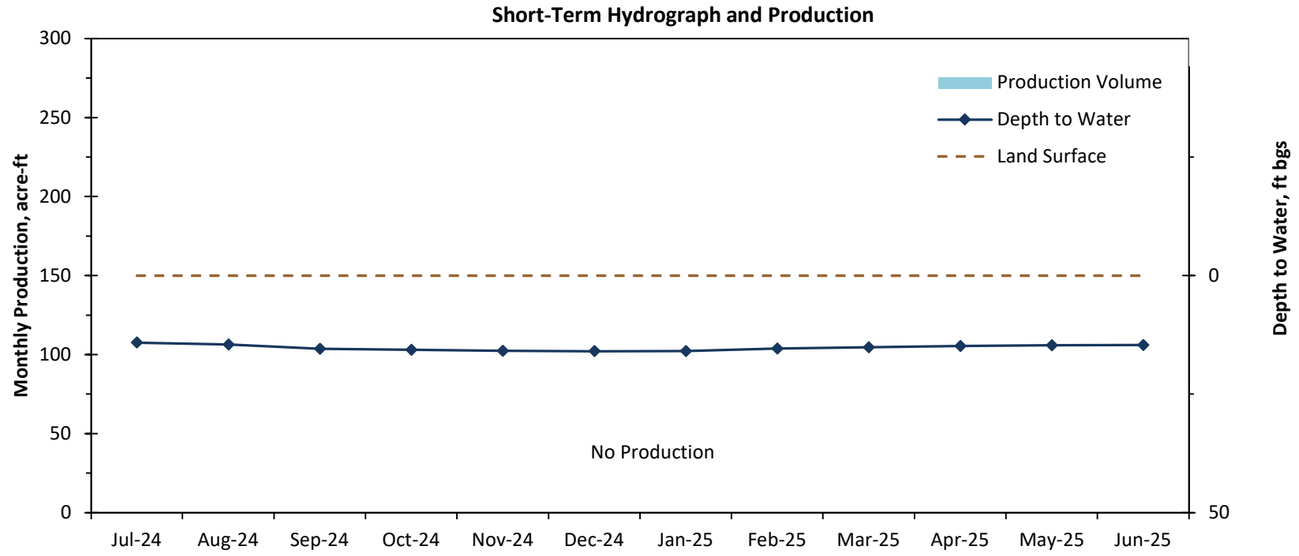


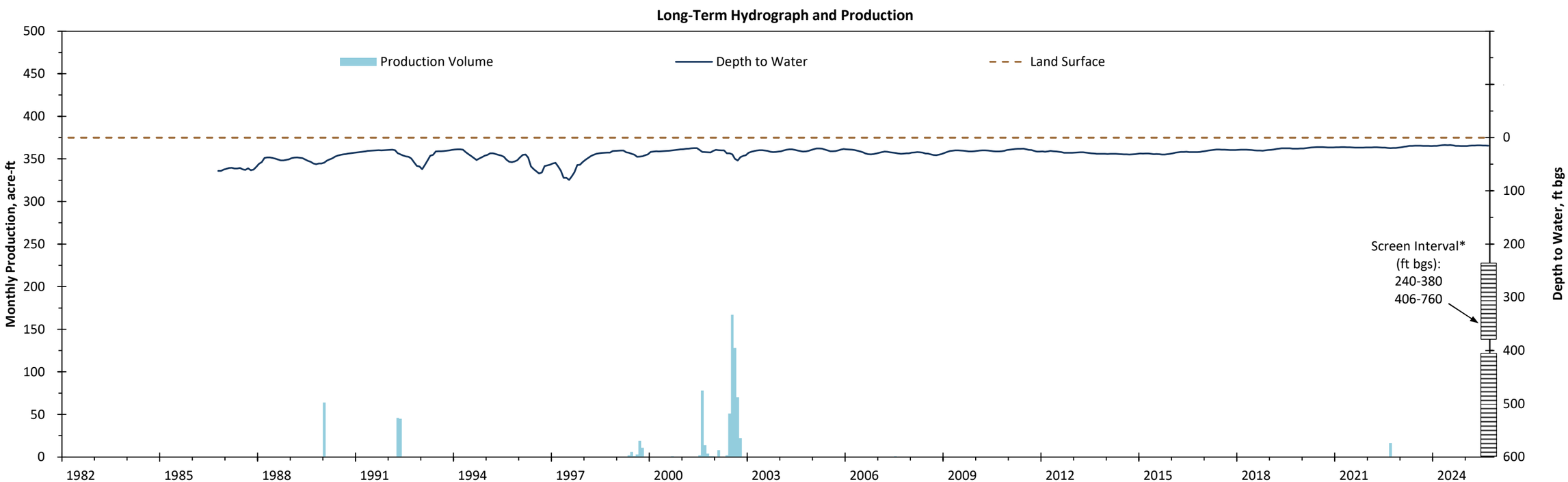
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 121

Well Performance and Recommended Production

Hydrolgic Subarea	4
Hydrolgic Subunit	South Murrieta Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	NA
Static Submergence [ft]	460
Comments	Currently offline
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**



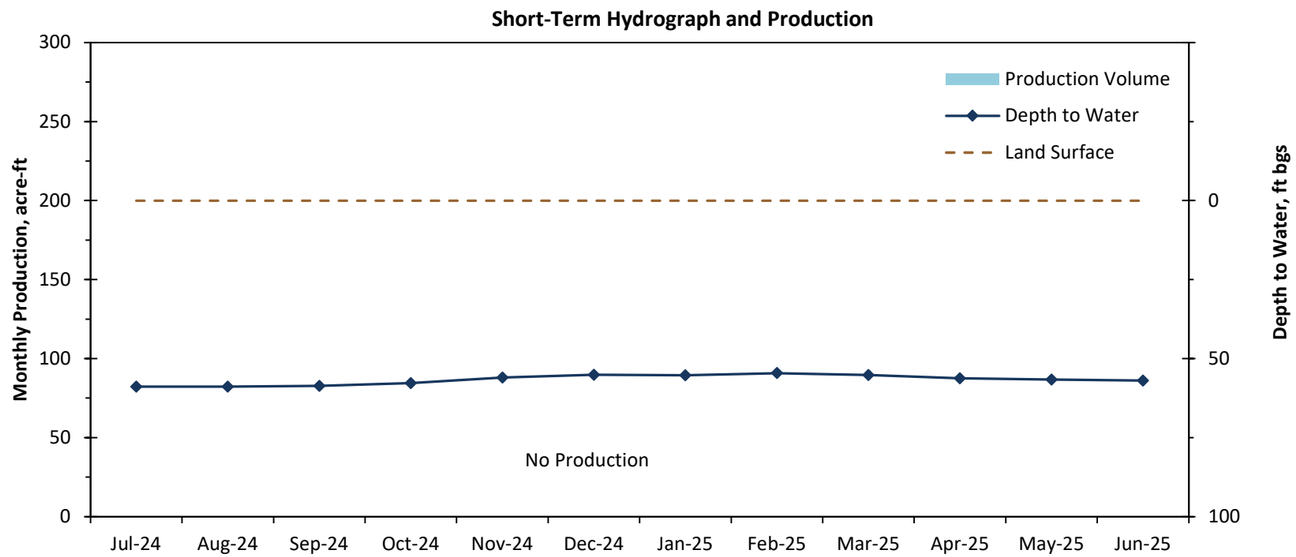


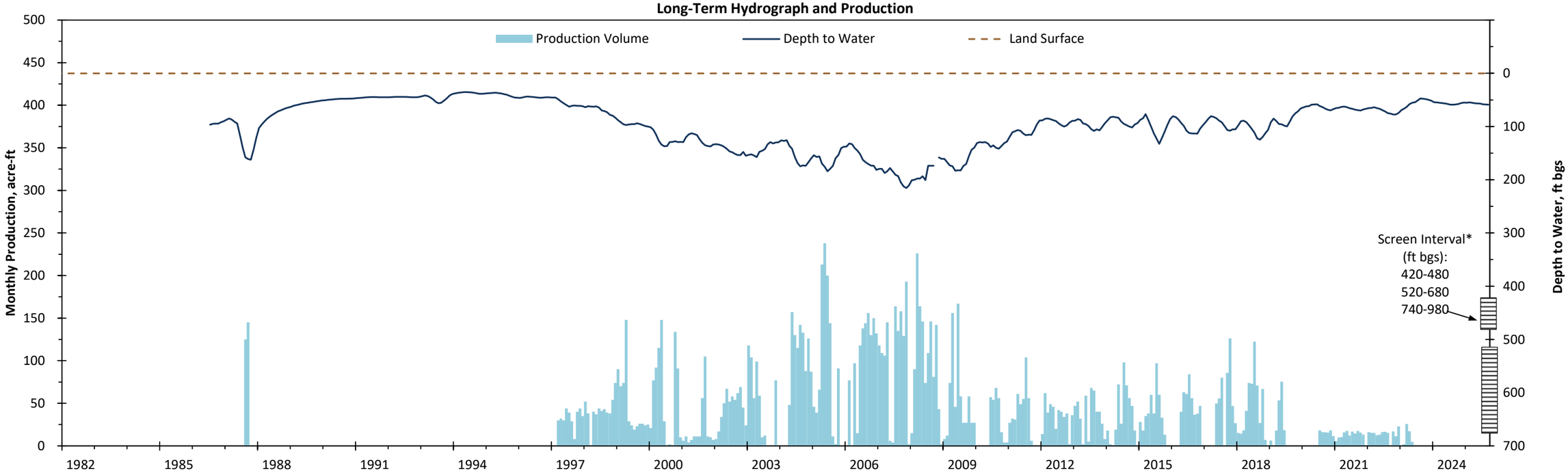
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 122

Well Performance and Recommended Production

Hydrolgic Subarea	7
Hydrolgic Subunit	Wolf Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	1,400
Static Submergence [ft]	602
Comments	Constituent: PFAS Over MCL?: NA Offline due to PFAS detections and will remain offline until further notice, Pump has been downsized
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**





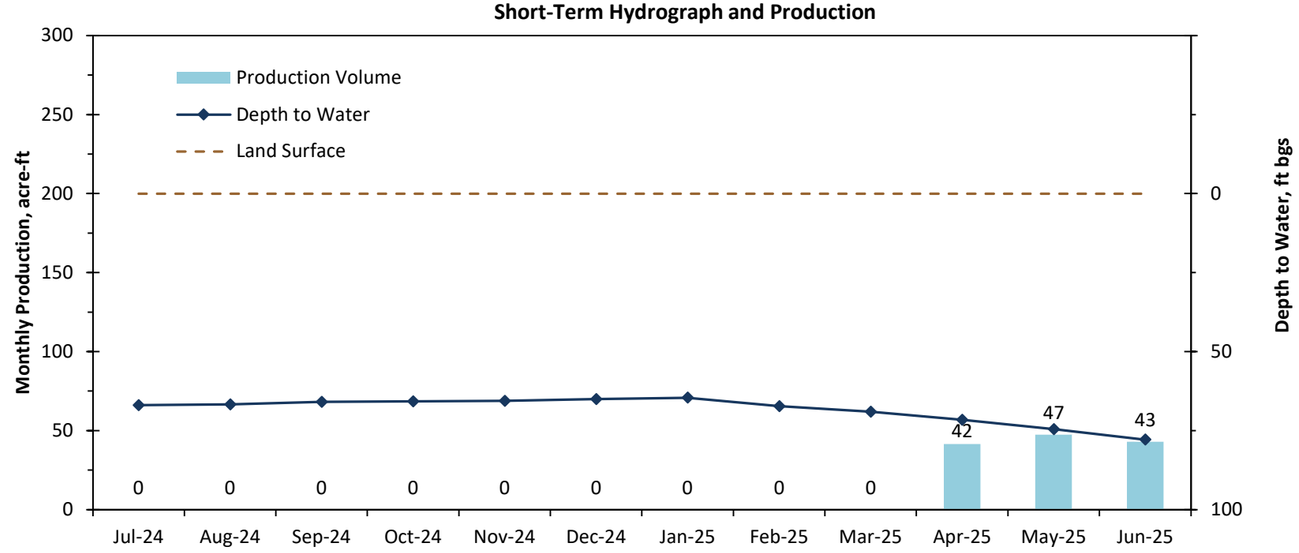
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 123

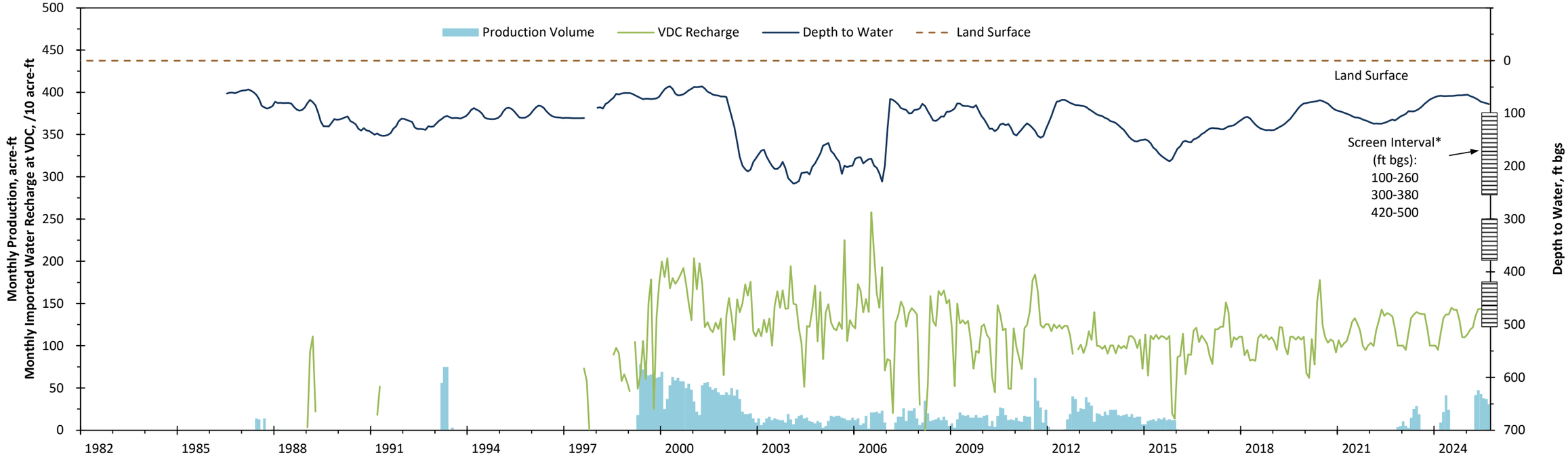
Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Combined
Instantaneous Yield [gpm]	350
Static Submergence [ft]	578
Comments	Capacity at 200 gpm, rehabbed in 2025. The lower screen was backfilled. The motor was just replaced
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	132
Percent of Total Production from Qyal	65%
Production from Qyal [acre-ft]	86
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**200**

Short-Term Hydrograph and Production



Long-Term Hydrograph and Production



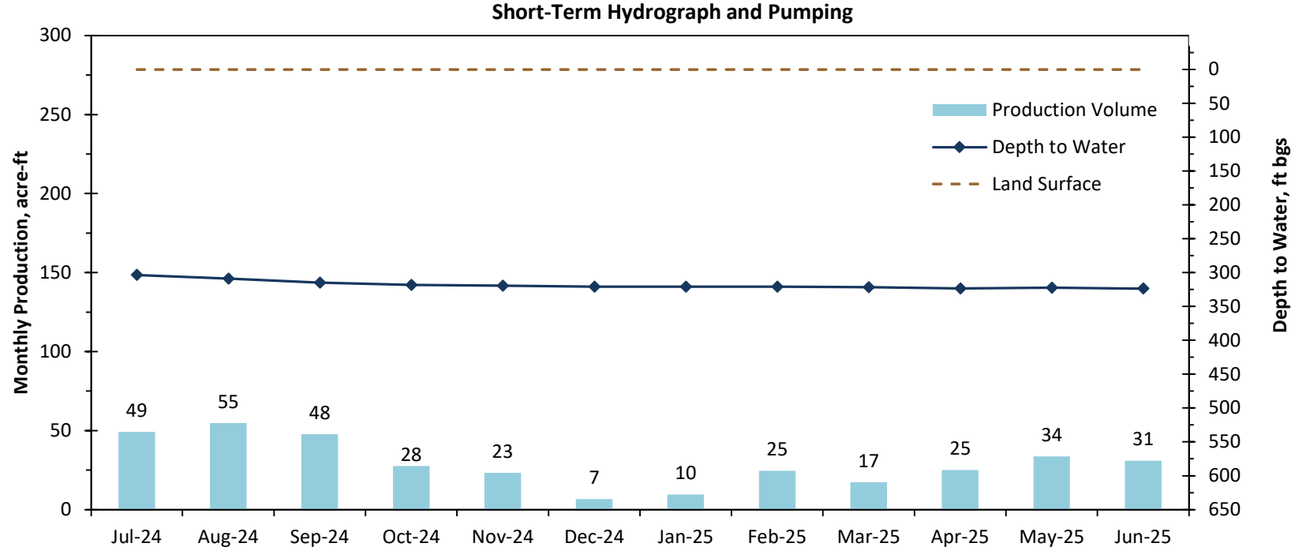
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 126

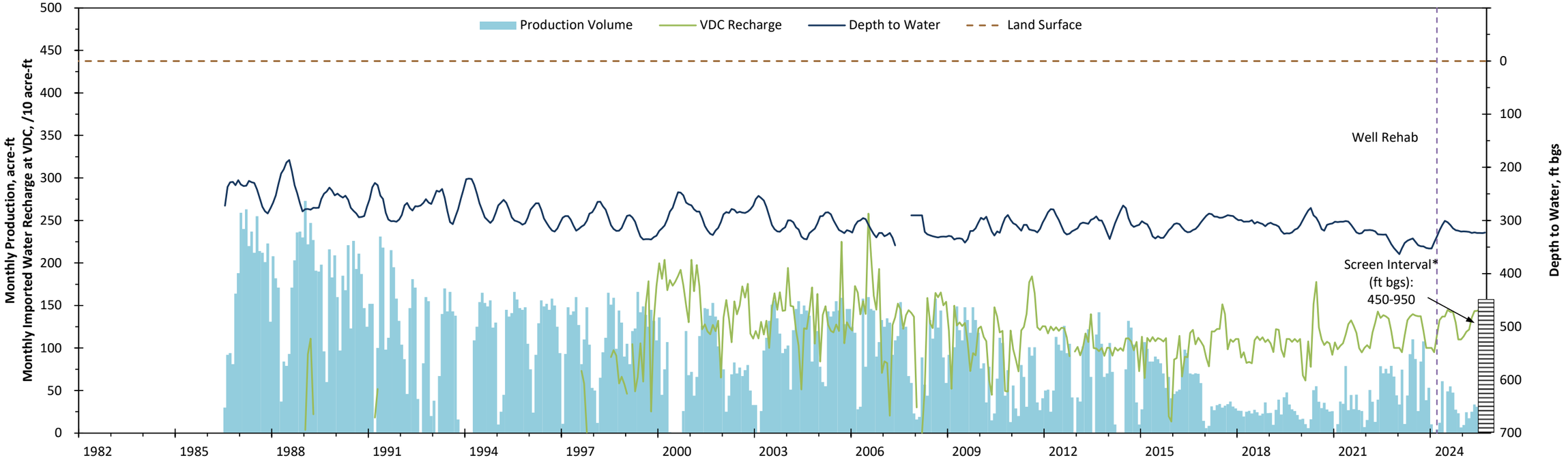
Well Performance and Recommended Production

Hydrolgic Subarea	10
Hydrolgic Subunit	Pauba Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	1,150
Static Submergence [ft]	758
Comments	Constituent: Arsenic/Fluoride Over MCL?: Y On DDW approved blending plan, High arsenic, to be rehabbed in May 2026
Recommended Production [acre-ft] Jul-2025 to Jun-2026	400
Actual Production [acre-ft] Jul-2024 to Jun-2025	350
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**500**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

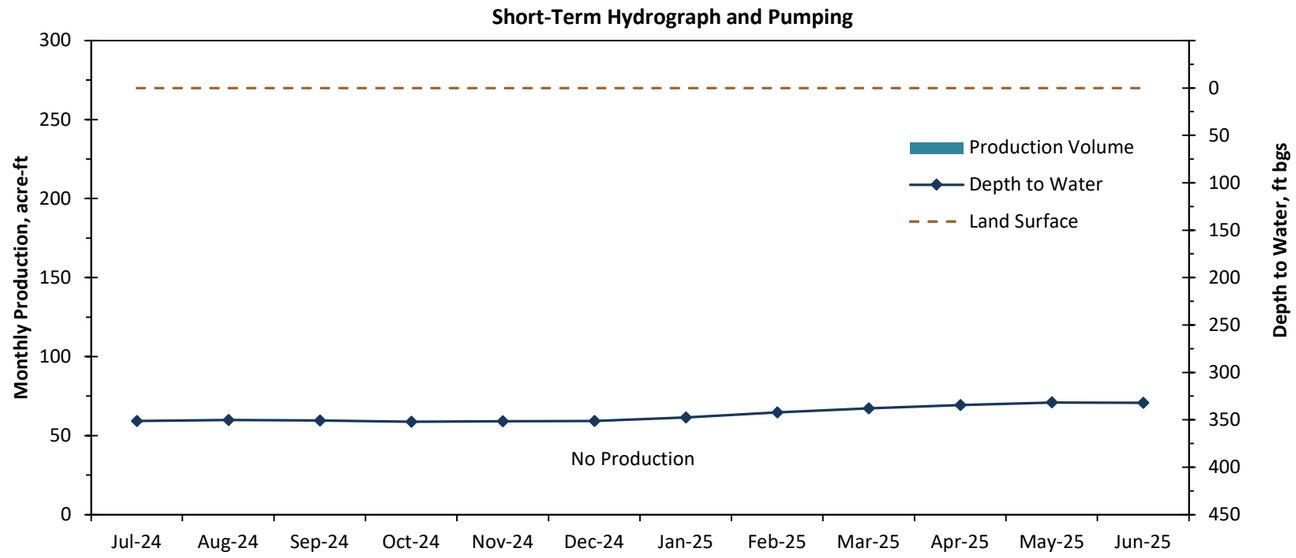


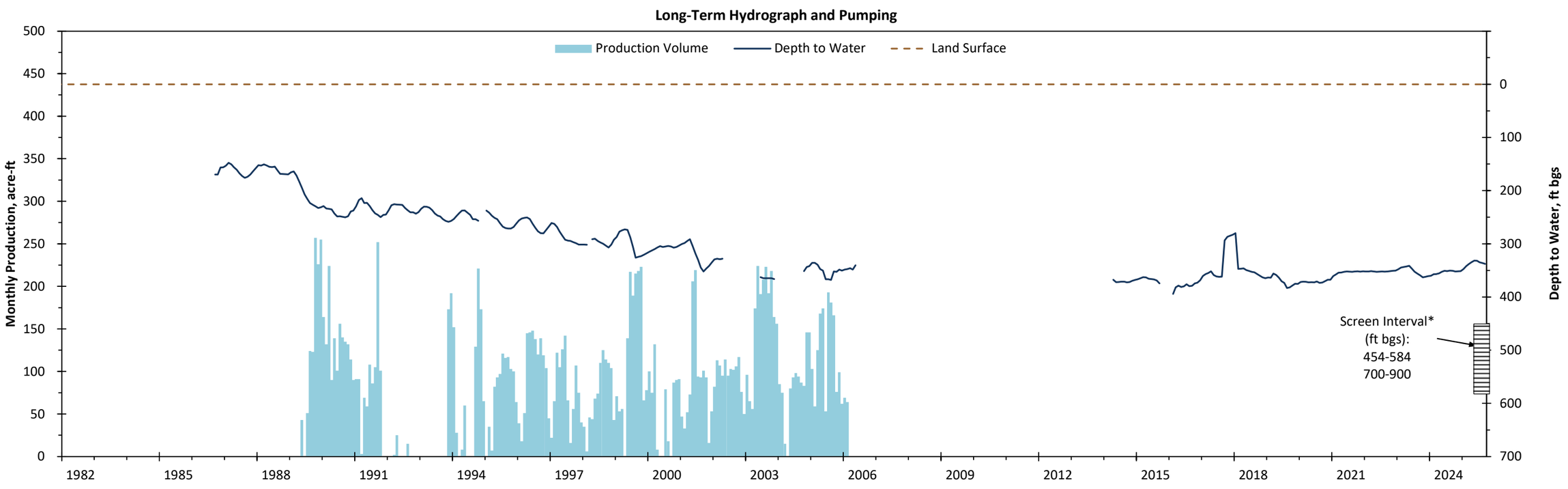
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 128

Well Performance and Recommended Production

Hydrolgic Subarea	19
Hydrolgic Subunit	Lower Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	NA
Static Submergence [ft]	797
Comments	Currently offline due to high arsenic
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**



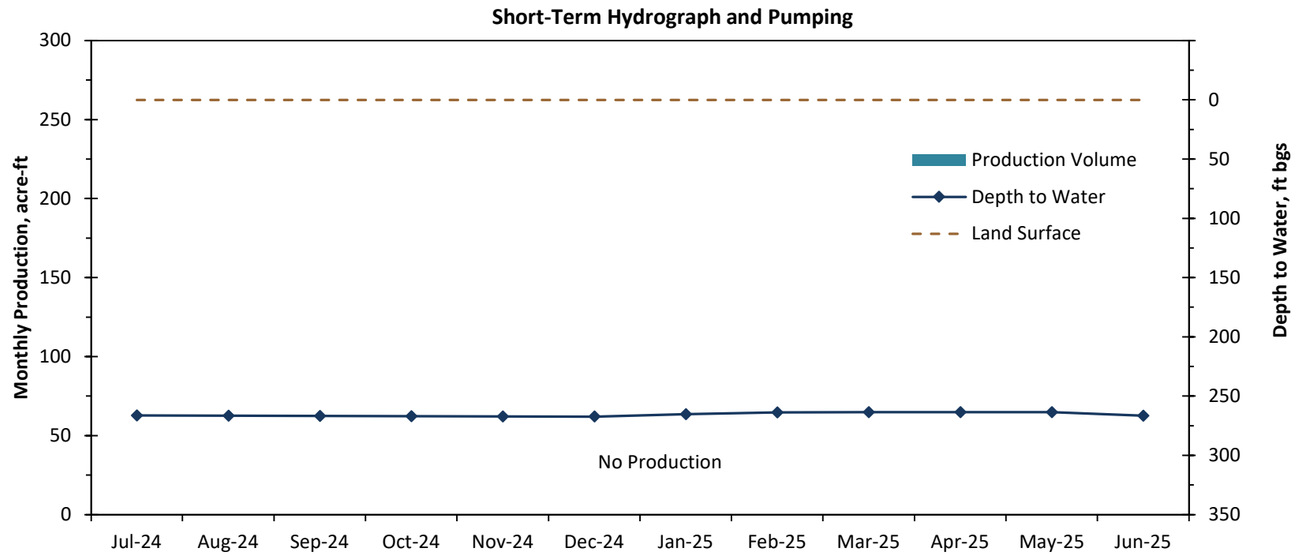


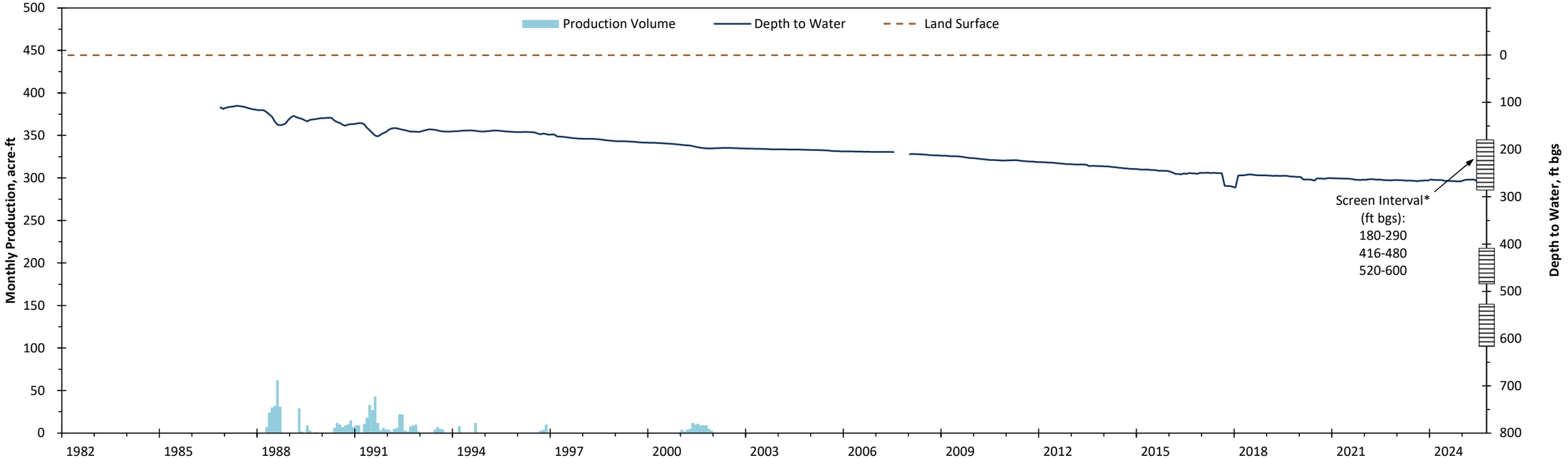
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 129

Well Performance and Recommended Production

Hydrolgic Subarea	18
Hydrolgic Subunit	Lower Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	NA
Static Submergence [ft]	479
Comments	Currently offline until re-equipped; screen interval partially dewatered; Temecula Aquifer Index Well
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**





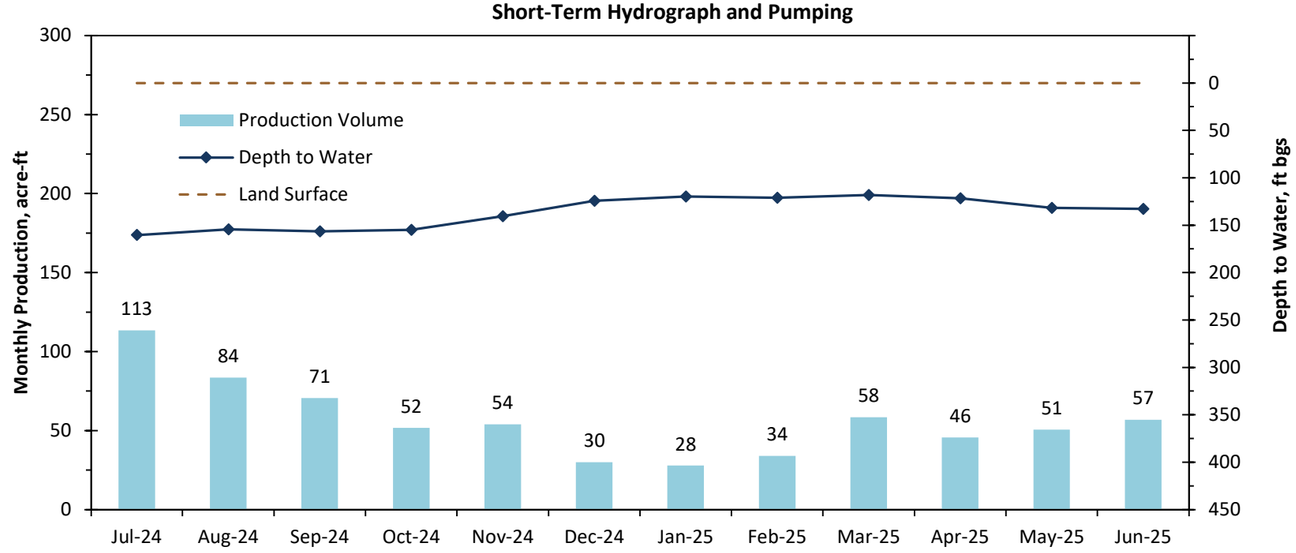
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 130

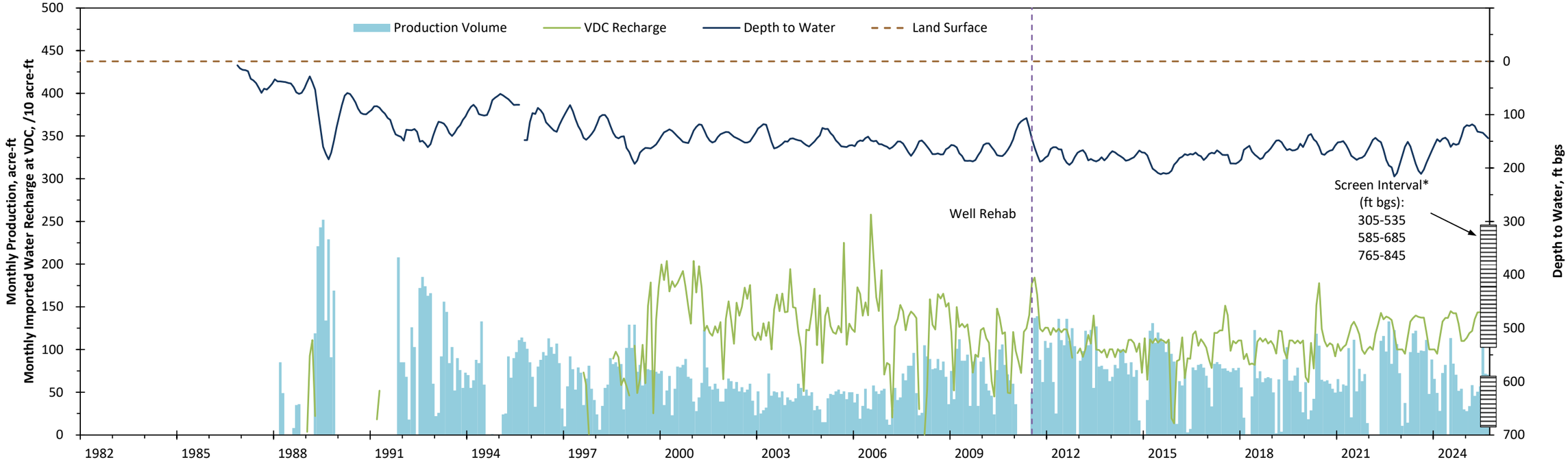
Well Performance and Recommended Production

Hydrolgic Subarea	12
Hydrolgic Subunit	Pauba Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	1,050
Static Submergence [ft]	528
Comments	Re-valved to 1380 zone; rehabbed in 2022 with pump setting at 295 ft bgs
Recommended Production [acre-ft] Jul-2025 to Jun-2026	750
Actual Production [acre-ft] Jul-2024 to Jun-2025	677
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**800**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping



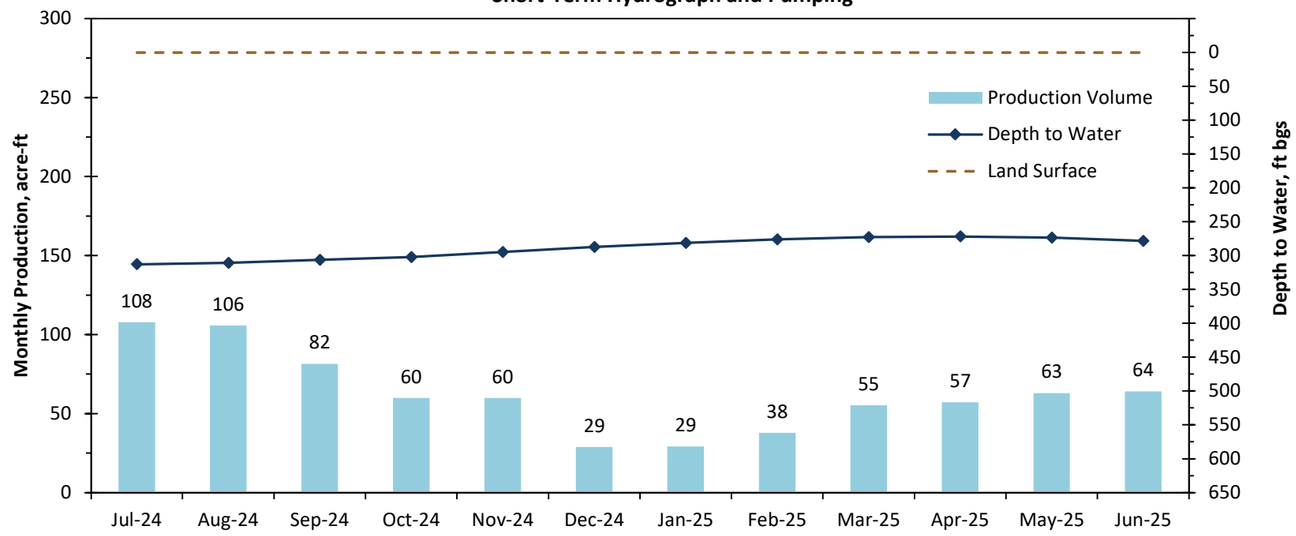
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 131

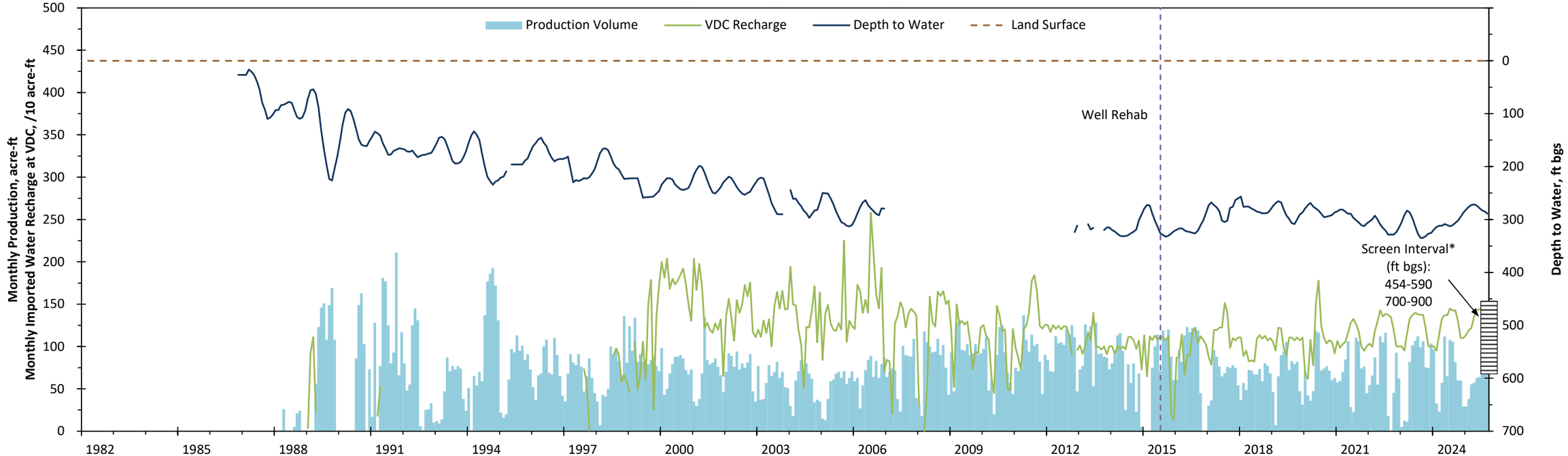
Well Performance and Recommended Production

Hydrolgic Subarea	12
Hydrolgic Subunit	Pauba Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	890
Static Submergence [ft]	752
Comments	Rehabbed in 2015; Temecula Aquifer Index Well
Recommended Production [acre-ft] Jul-2025 to Jun-2026	750
Actual Production [acre-ft] Jul-2024 to Jun-2025	750
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**800**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping



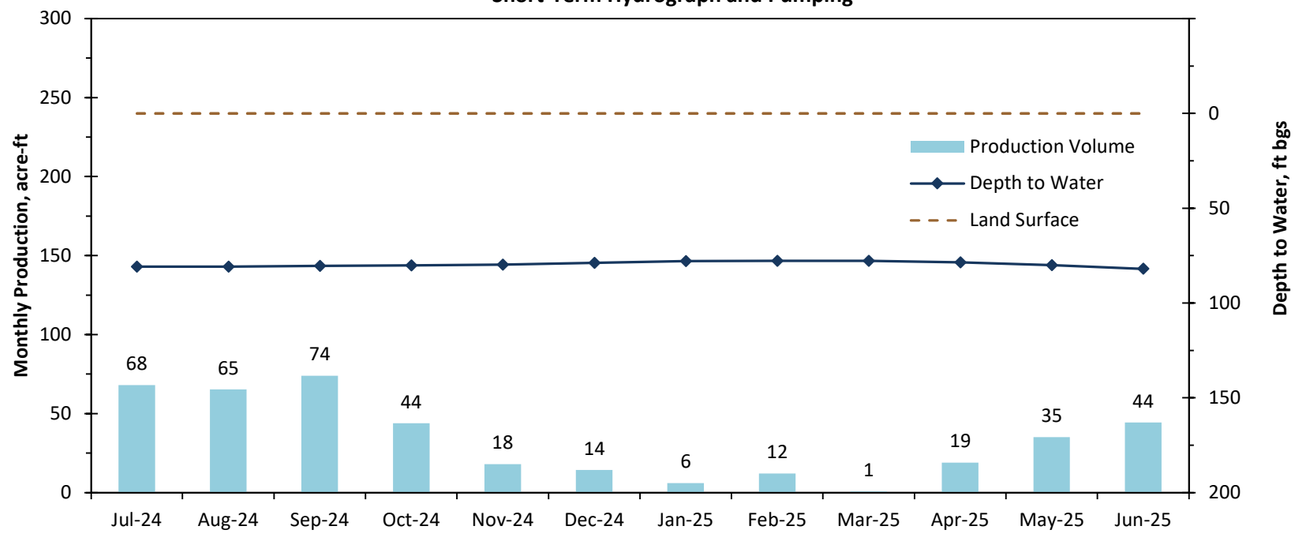
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 132

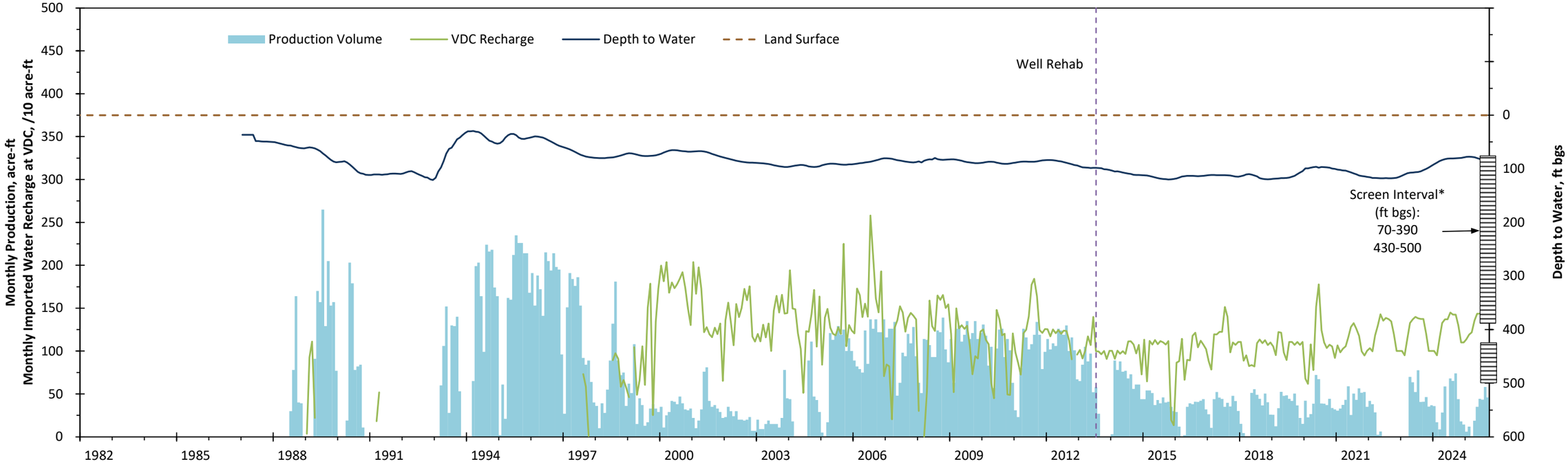
Well Performance and Recommended Production

Hydrolgic Subarea	12
Hydrolgic Subunit	Pauba Valley
Aquifer	Combined
Instantaneous Yield [gpm]	830
Static Submergence [ft]	337
Comments	Air to screen interval partially dewatered; rehab in 2022
Recommended Production [acre-ft] Jul-2025 to Jun-2026	450
Actual Production [acre-ft] Jul-2024 to Jun-2025	401
Percent of Total Production from Qyal	82%
Production from Qyal [acre-ft]	329
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**450**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

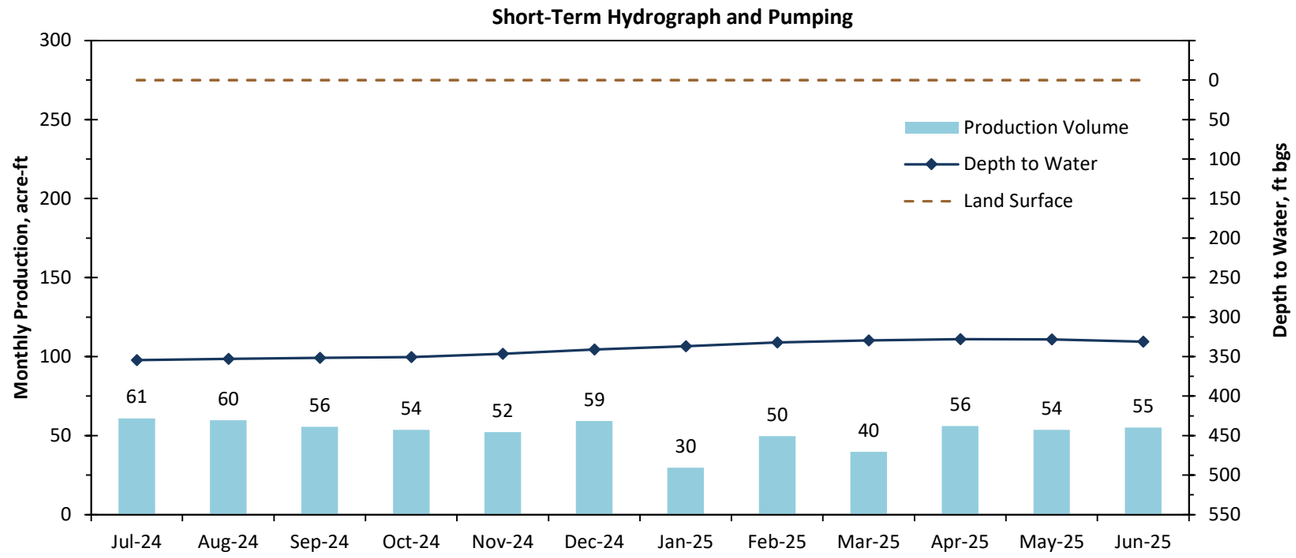


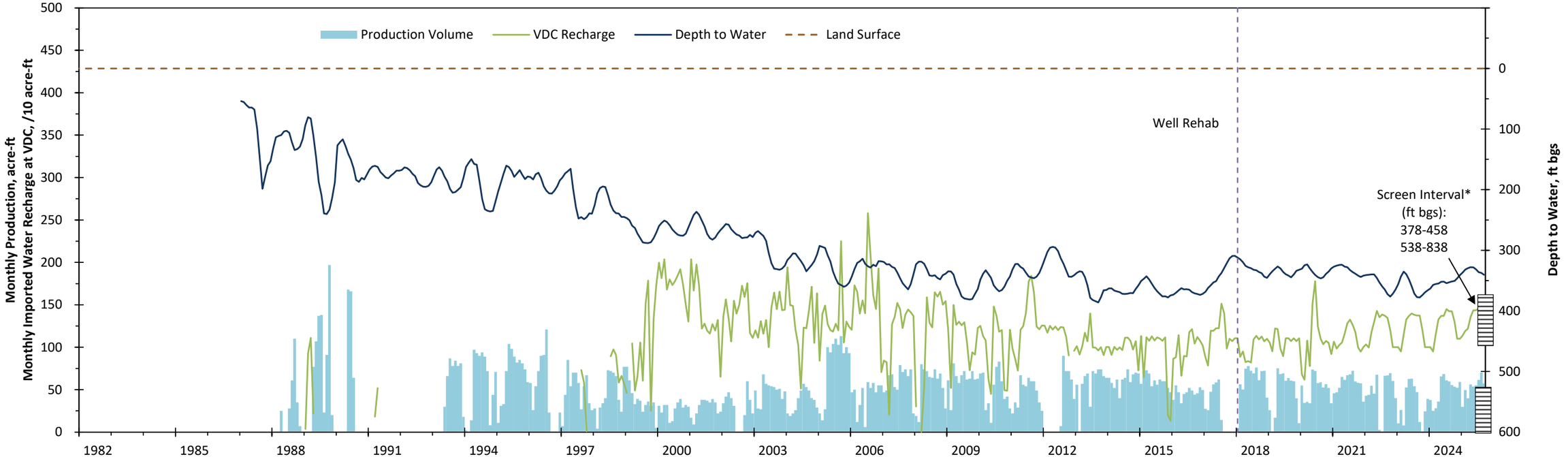
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 133

Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	530
Static Submergence [ft]	870
Comments	Rehabbed in January 2018. Off for two months due to water quality issue (i.e., bacteria). Detected PFOA and waiting for results
Recommended Production [acre-ft] Jul-2025 to Jun-2026	600
Actual Production [acre-ft] Jul-2024 to Jun-2025	625
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**600**



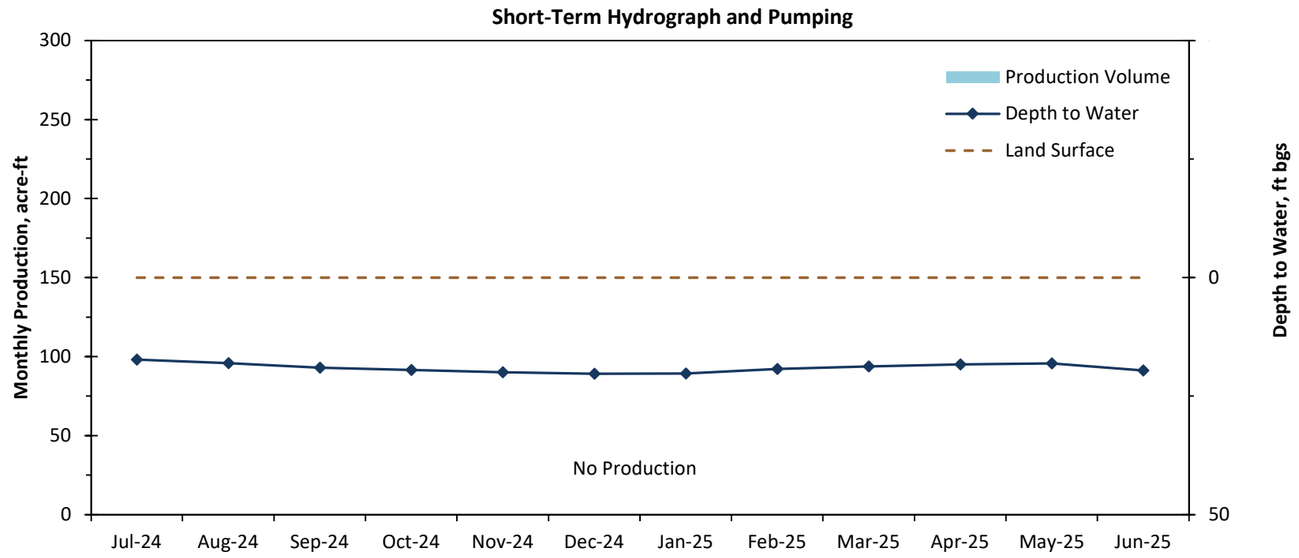


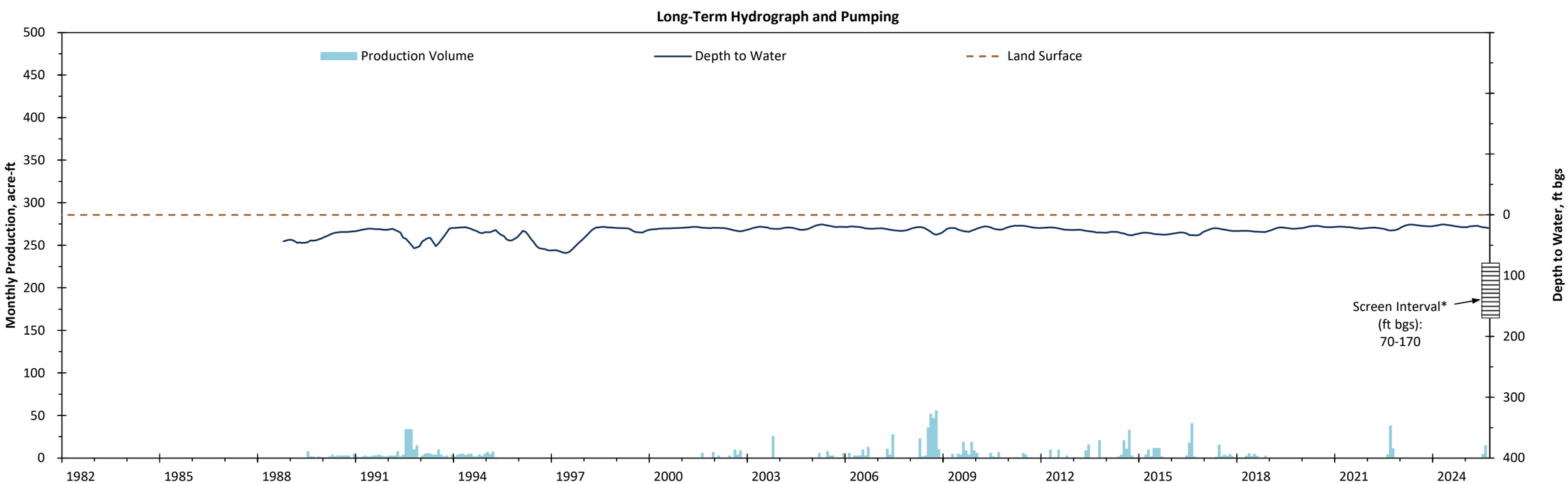
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 135

Well Performance and Recommended Production

Hydrolgic Subarea	3
Hydrolgic Subunit	North Murrieta Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	0
Static Submergence [ft]	196
Comments	Recycled water well
Recommended Production [acre-ft] Jul-2025 to Jun-2026	15
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**



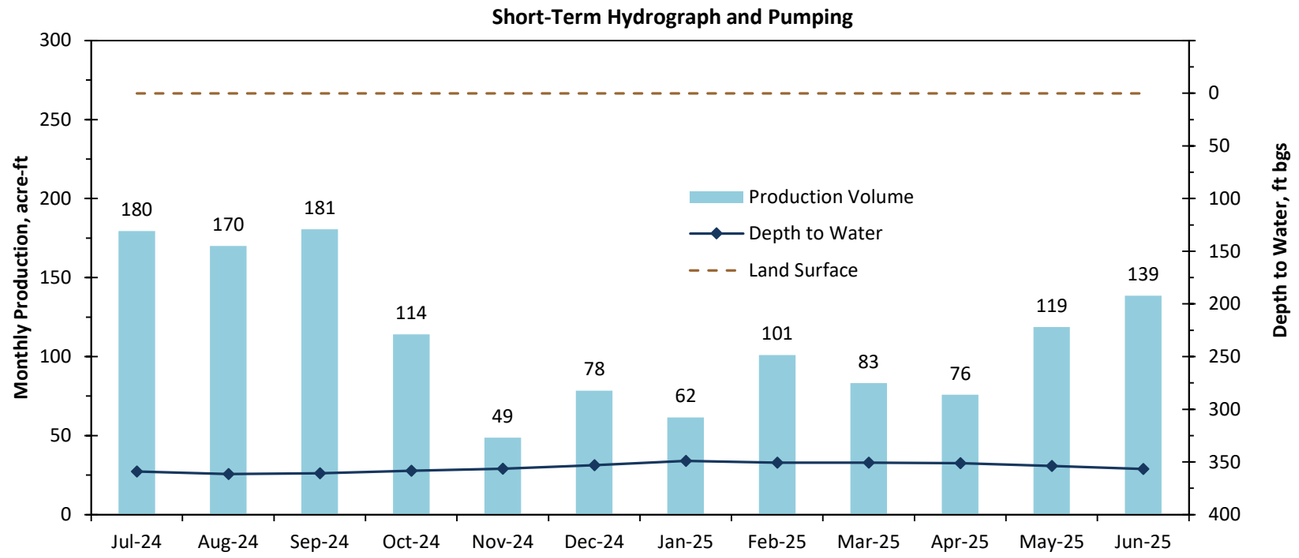


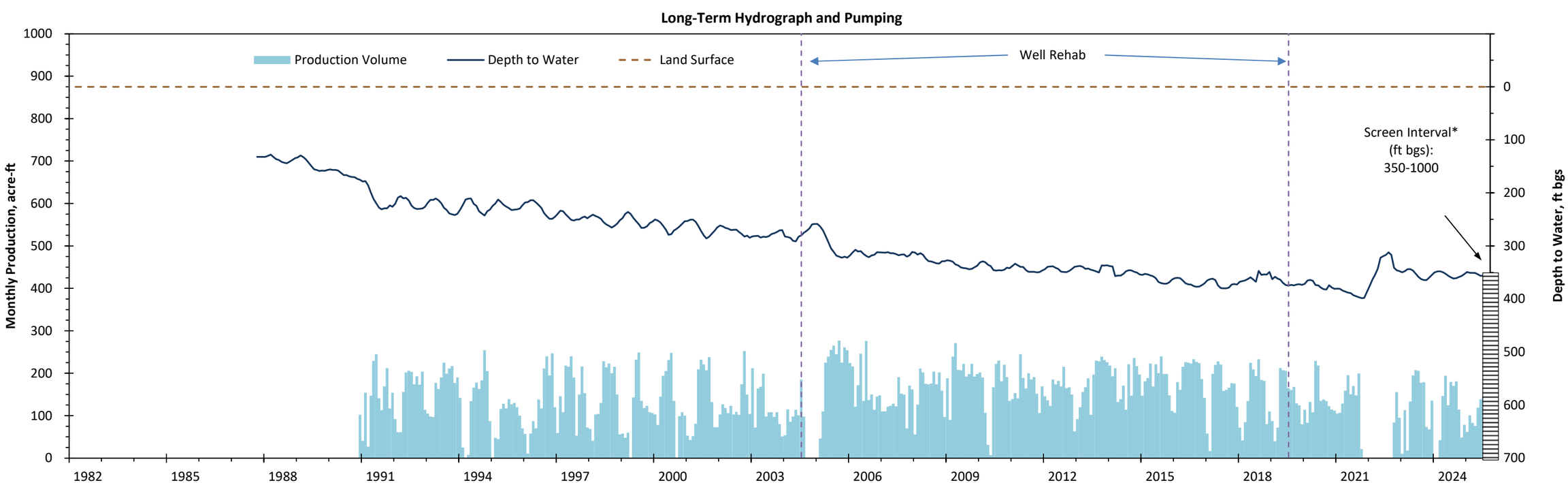
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 138

Well Performance and Recommended Production

Hydrolgic Subarea	19
Hydrolgic Subunit	Lower Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	1,600
Static Submergence [ft]	838
Comments	Constituent: Arsenic Over MCL?: N around 1/2 the MCL, Rehab scheduled in 2019; declining water level; screen interval partially dewatered; rehab in 2004
Recommended Production [acre-ft] Jul-2025 to Jun-2026	1,400
Actual Production [acre-ft] Jul-2024 to Jun-2025	1,350
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**1,450**





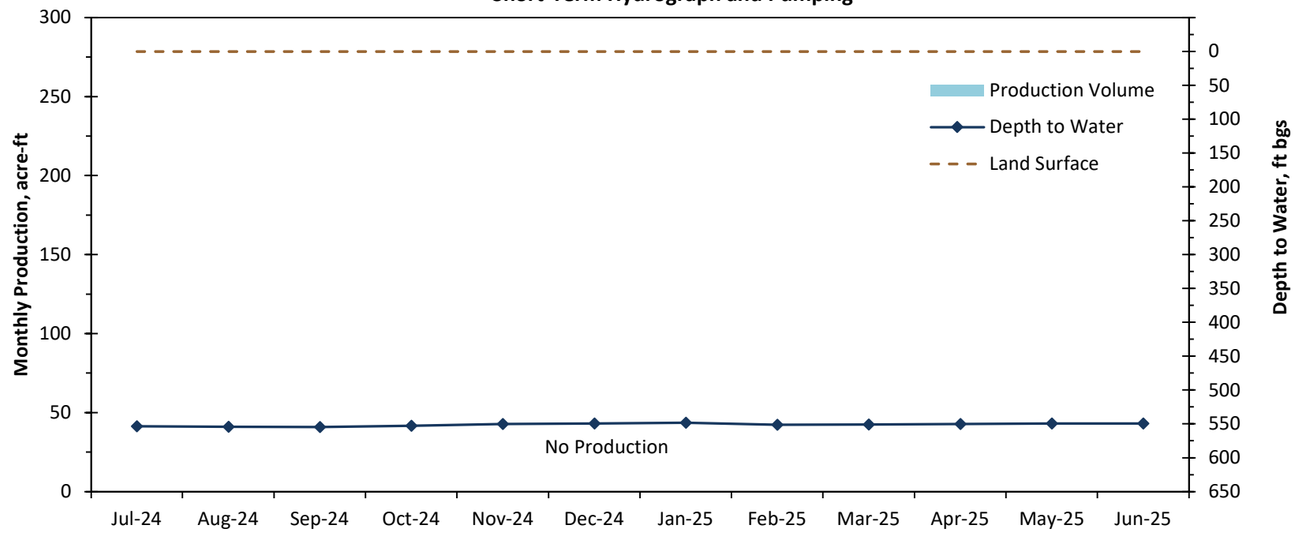
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 139

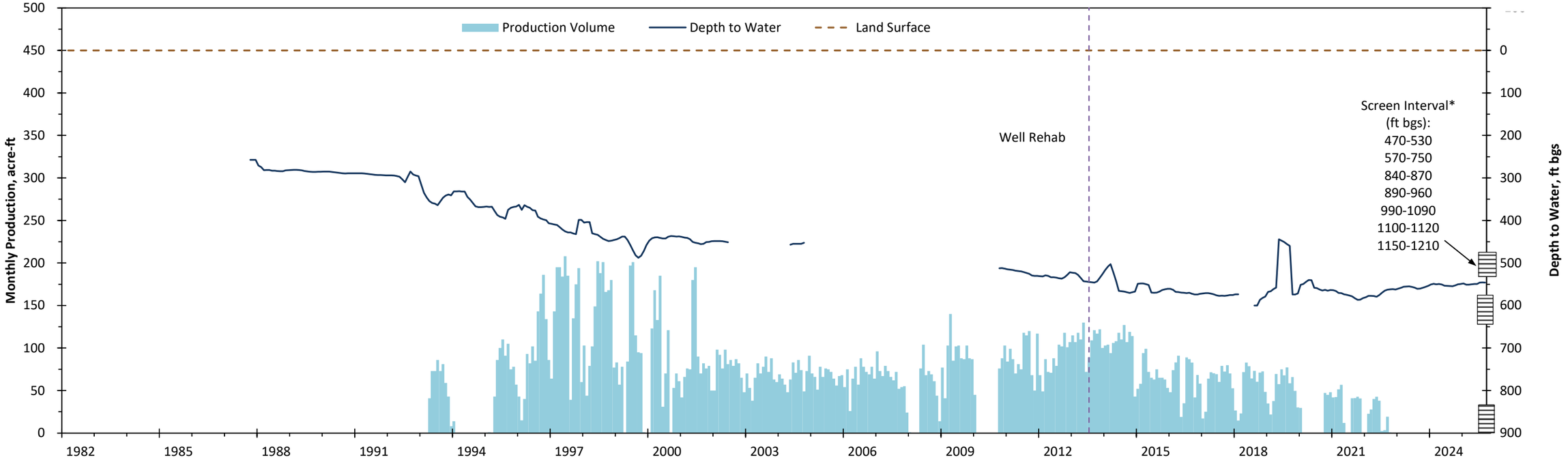
Well Performance and Recommended Production

Hydrolgic Subarea	17
Hydrolgic Subunit	Lower Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	300
Static Submergence [ft]	1,087
Comments	To be rehabbed in 2026; declining water levels; screen interval partially dewatered; Temecula Aquifer Index Well
Recommended Production [acre-ft] Jul-2025 to Jun-2026	125
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**250**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

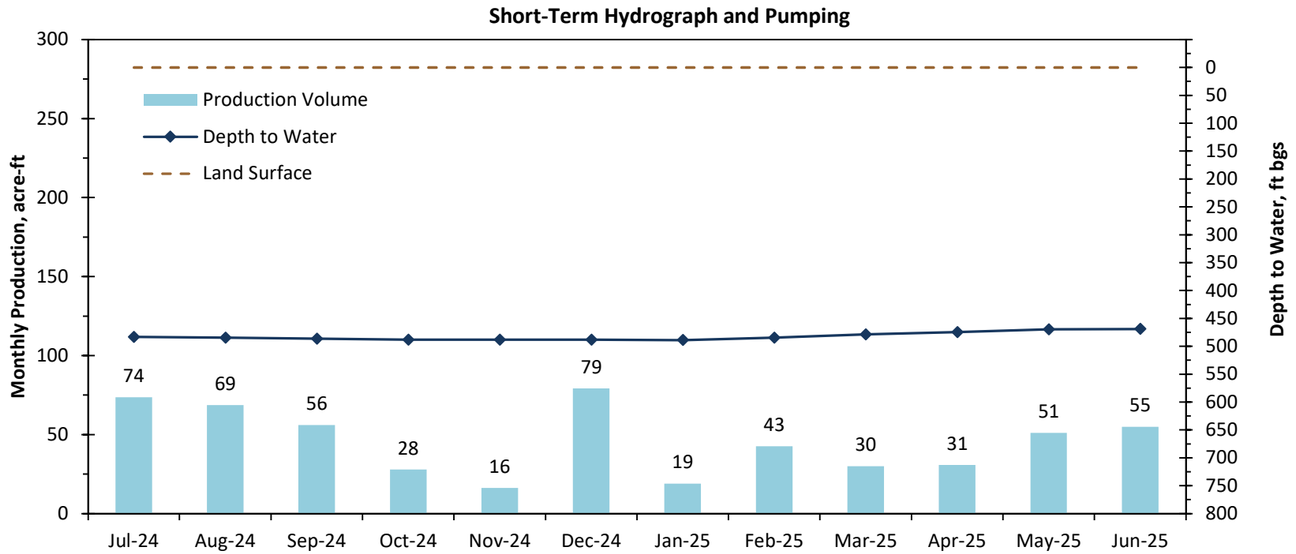


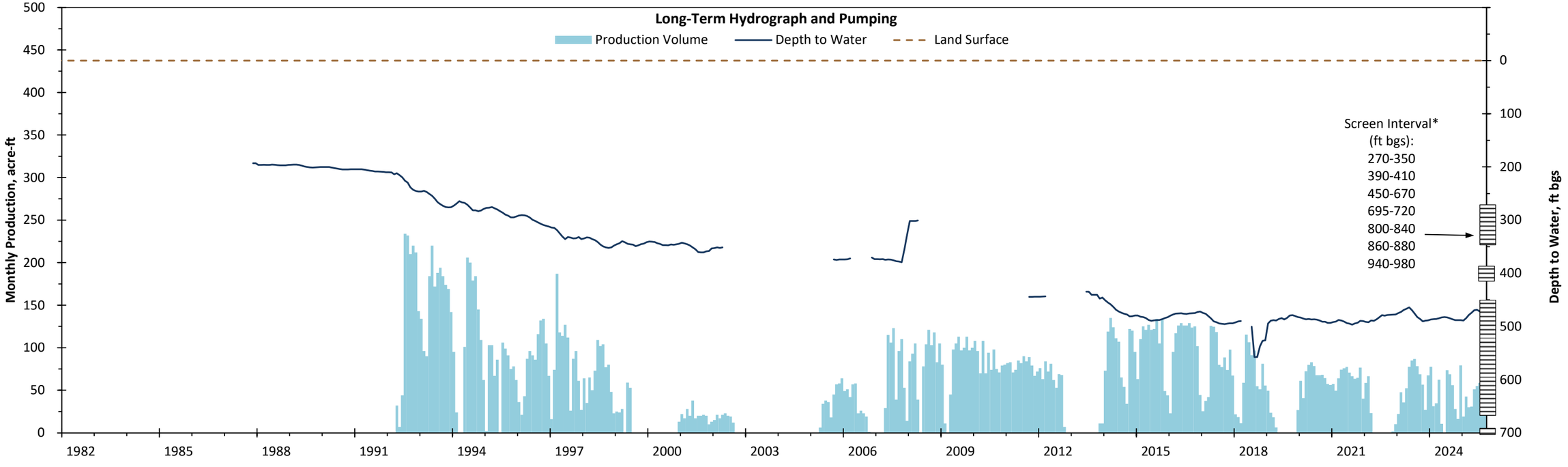
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 140

Well Performance and Recommended Production

Hydrolgic Subarea	17
Hydrolgic Subunit	Lower Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	630
Static Submergence [ft]	953
Comments	Constituent: Arsenic Over MCL?: N above 1/2 the MCL
Recommended Production [acre-ft] Jul-2025 to Jun-2026	575
Actual Production [acre-ft] Jul-2024 to Jun-2025	550
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**600**





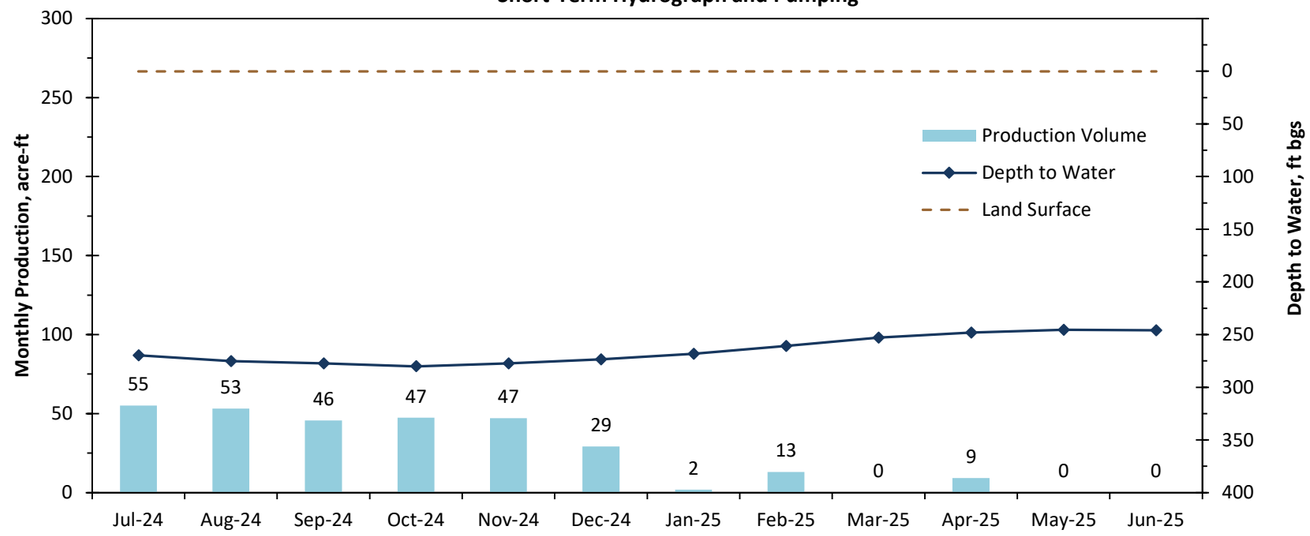
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 141

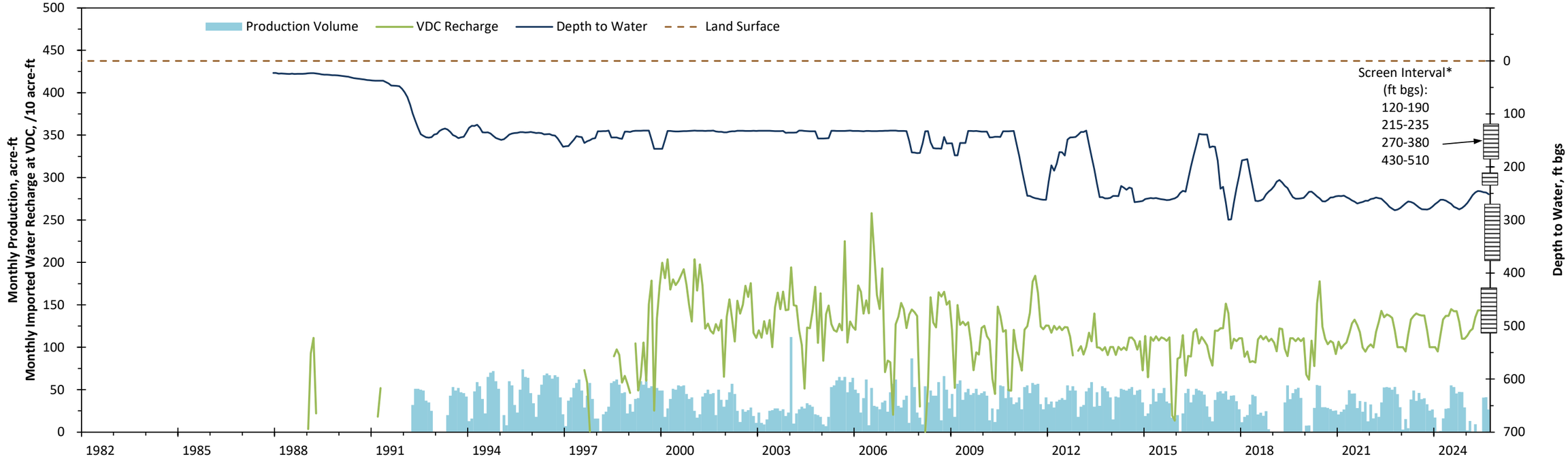
Well Performance and Recommended Production

Hydrolgic Subarea	11
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	400
Static Submergence [ft]	710
Comments	None
Recommended Production [acre-ft] Jul-2025 to Jun-2026	300
Actual Production [acre-ft] Jul-2024 to Jun-2025	302
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**350**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping



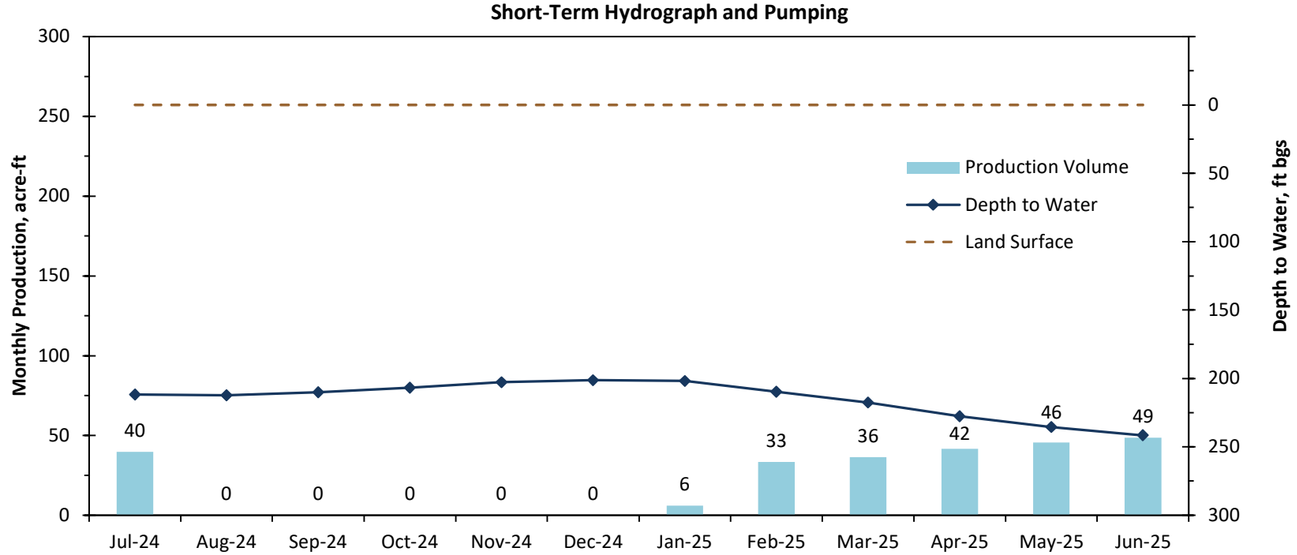
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 143

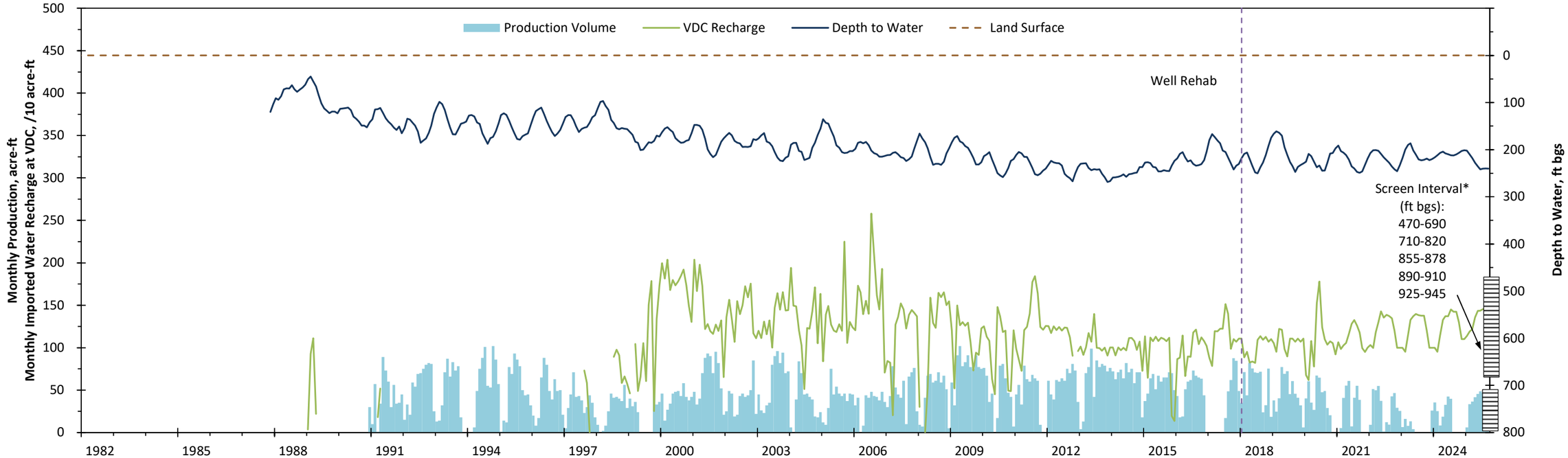
Well Performance and Recommended Production

Hydrolgic Subarea	10
Hydrolgic Subunit	Pauba Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	475
Static Submergence [ft]	756
Comments	Constituent: Arsenic/PFAS Over MCL?: Y Exceeded the MCL for arsenic last year. On approved blending plan., Current at 350 gpm, high arsenic, to be rehabbed in 2026. Detected PFOA. Planning to blend with Well No. 109
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	251
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**325**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

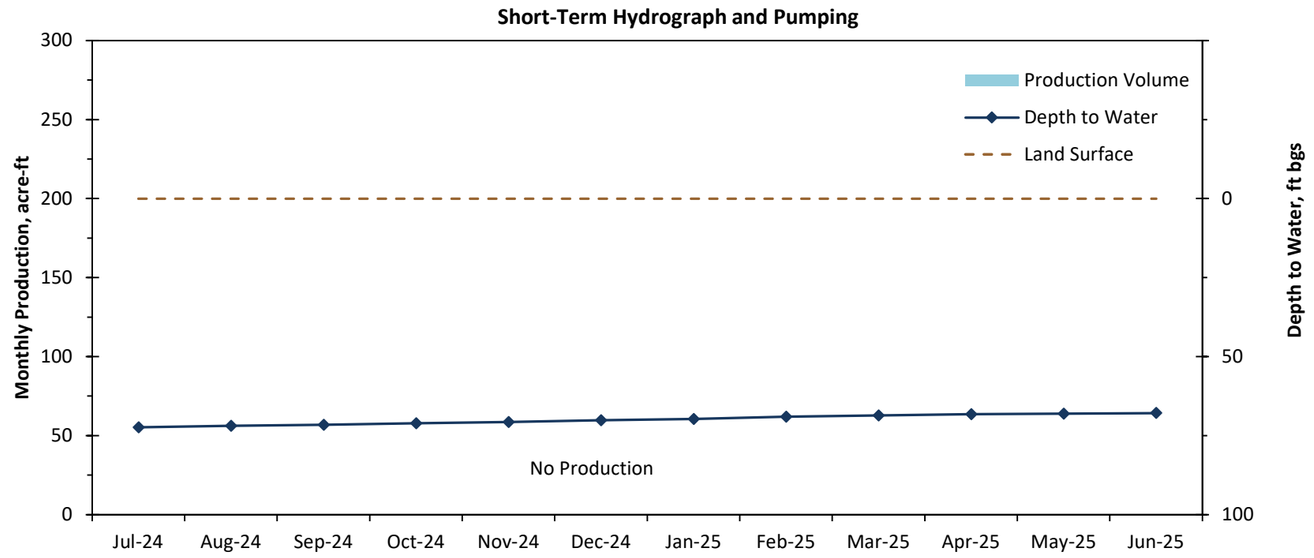


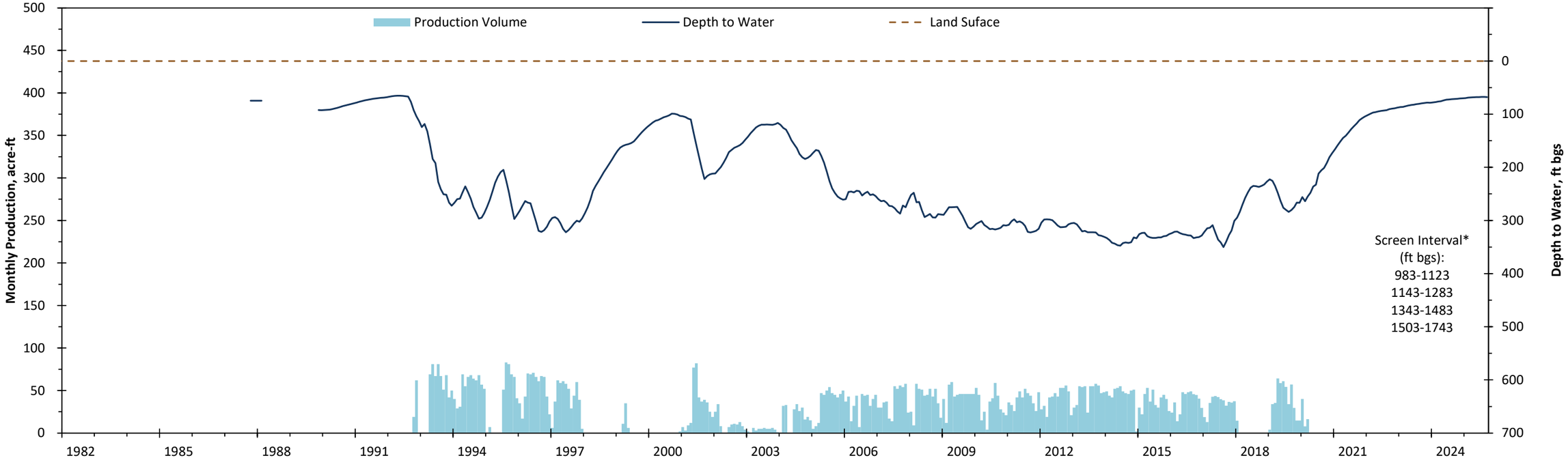
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION- RCWD WELL NO. 144

Well Performance and Recommended Production

Hydrolgic Subarea	3
Hydrolgic Subunit	North Murrieta Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	0
Static Submergence [ft]	734
Comments	Replacement well is on the CIP list
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**



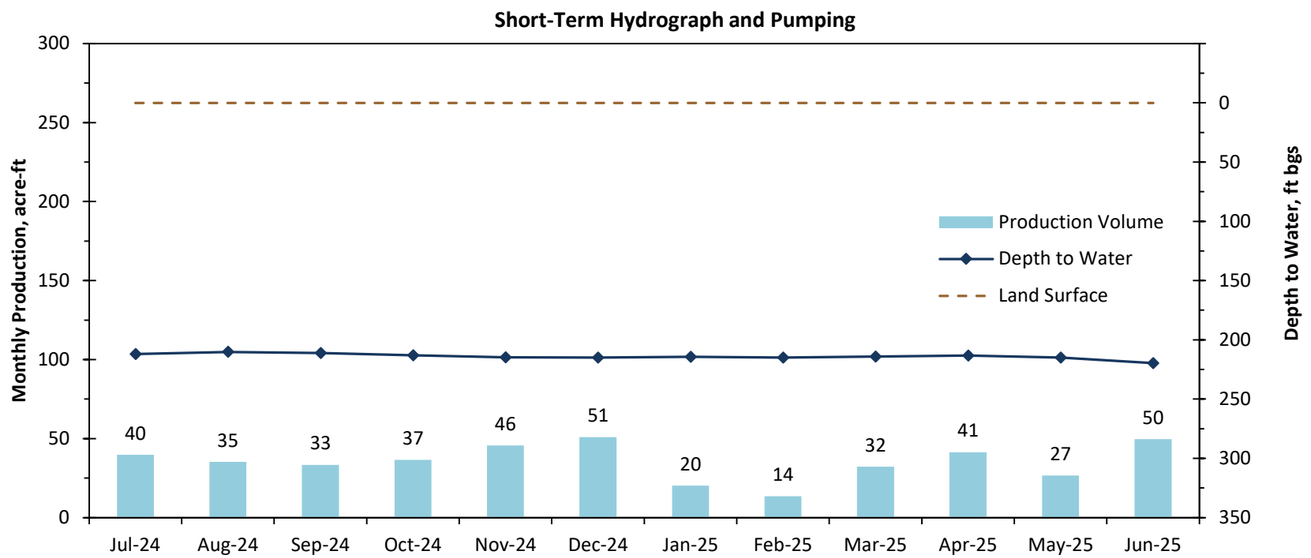


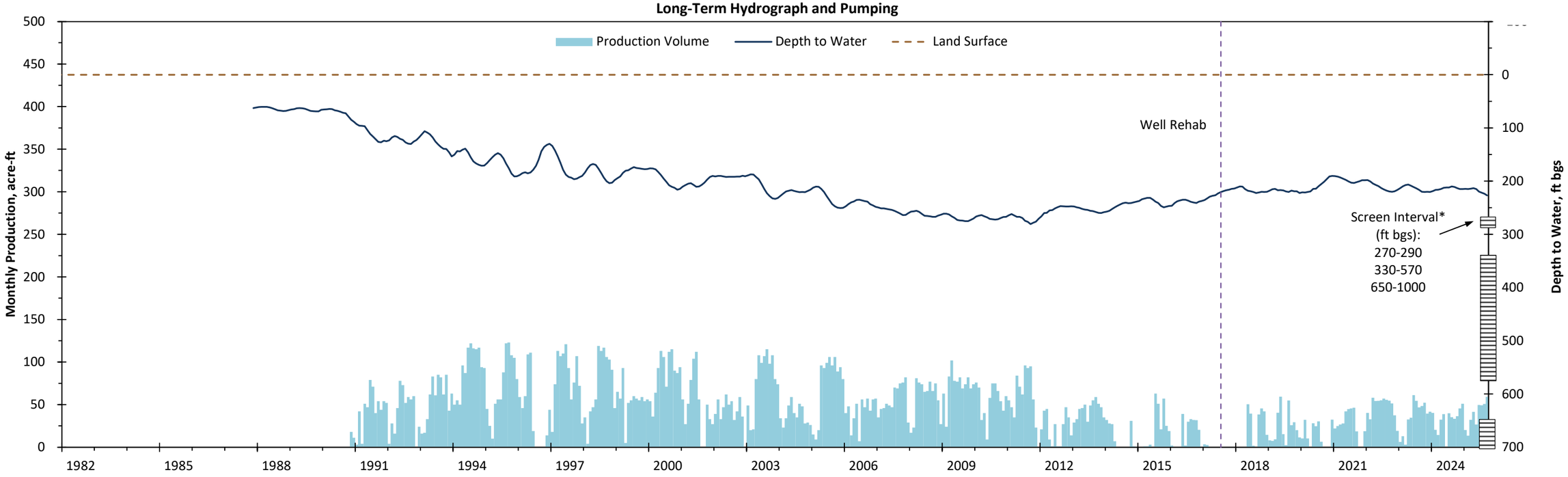
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 145

Well Performance and Recommended Production

Hydrolgic Subarea	2
Hydrolgic Subunit	North Murrieta Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	480
Static Submergence [ft]	878
Comments	Rehabbed in 2017
Recommended Production [acre-ft] Jul-2025 to Jun-2026	450
Actual Production [acre-ft] Jul-2024 to Jun-2025	425
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**450**



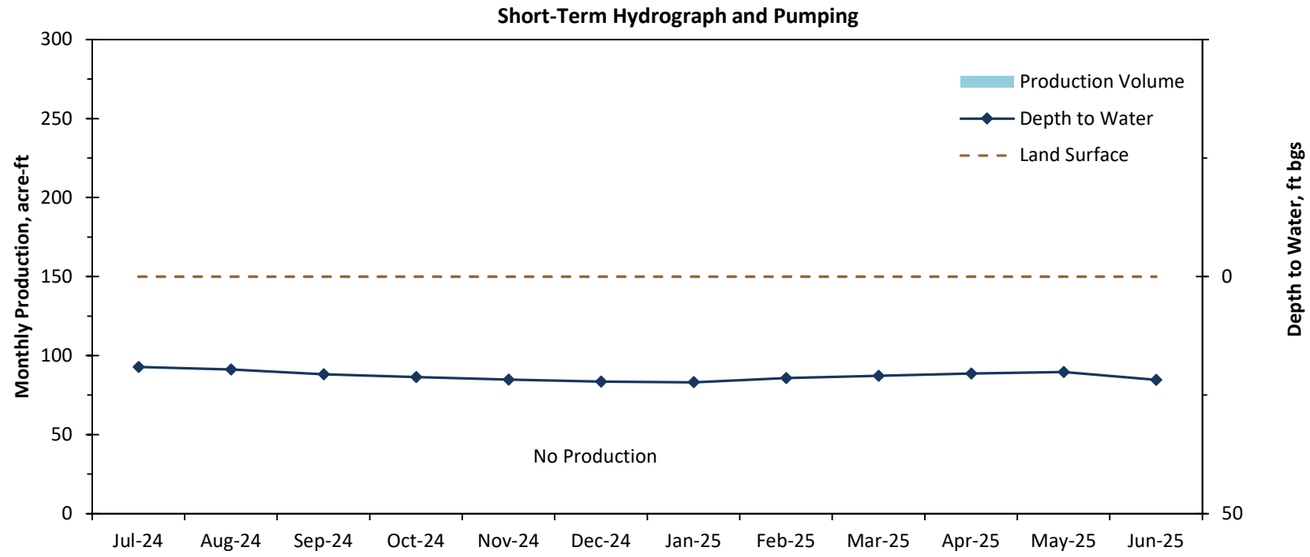


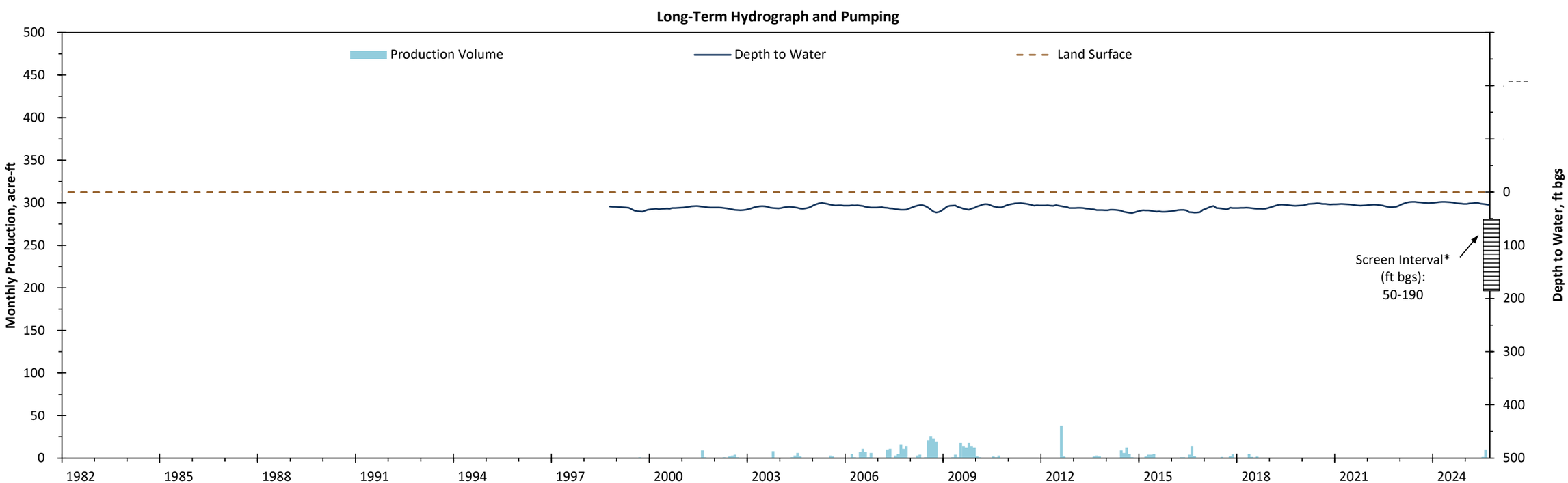
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 146

Well Performance and Recommended Production

Hydrolgic Subarea	3
Hydrolgic Subunit	North Murrieta Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	0
Static Submergence [ft]	256
Comments	Recycled water well
Recommended Production [acre-ft] Jul-2025 to Jun-2026	15
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**



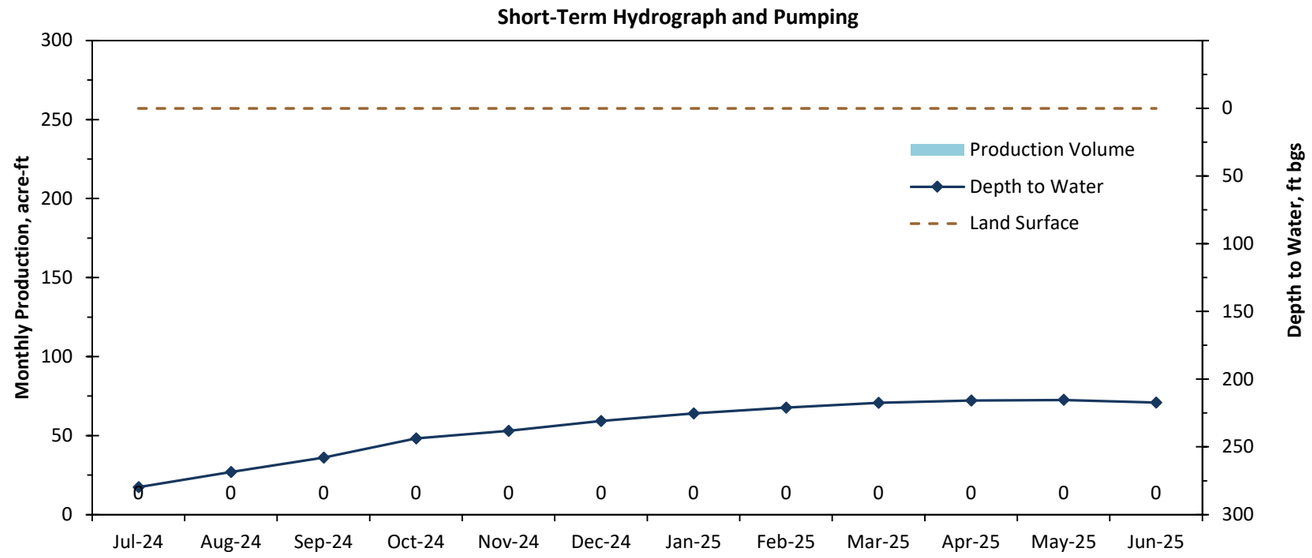


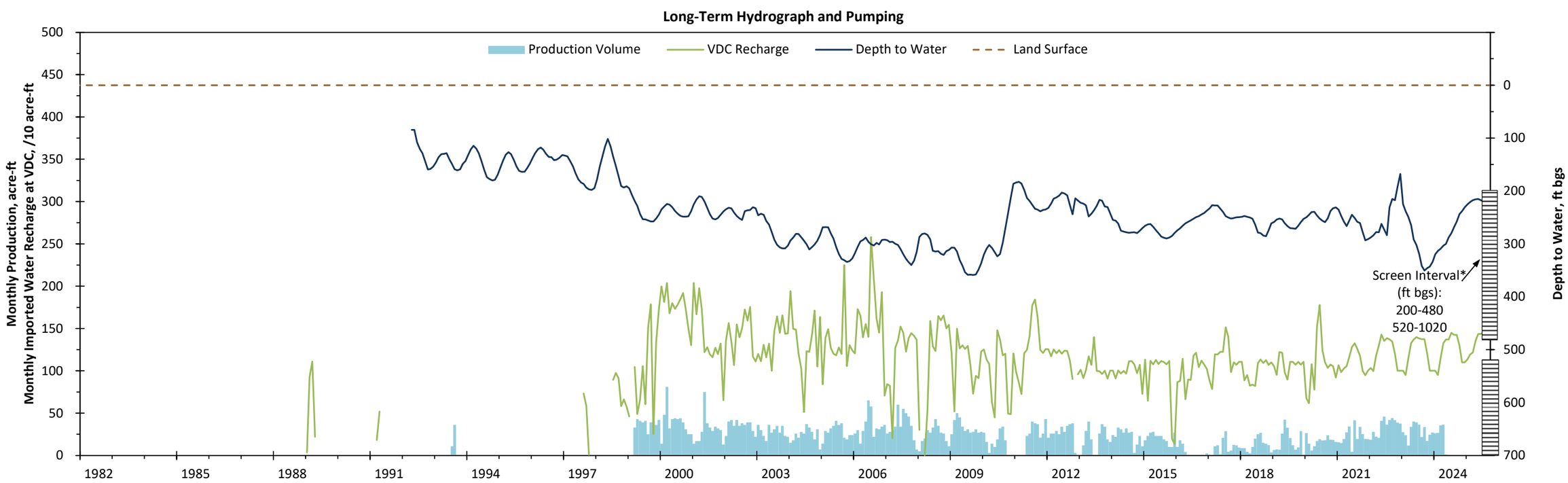
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 149

Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	370
Static Submergence [ft]	852
Comments	current at 200 gpm, to be rehabbed in 2026. Cleanup casing in early 2024. Possibly be relocated to the north where the contact basin is with a new pump station.
Recommended Production [acre-ft] Jul-2025 to Jun-2026	275
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**250**



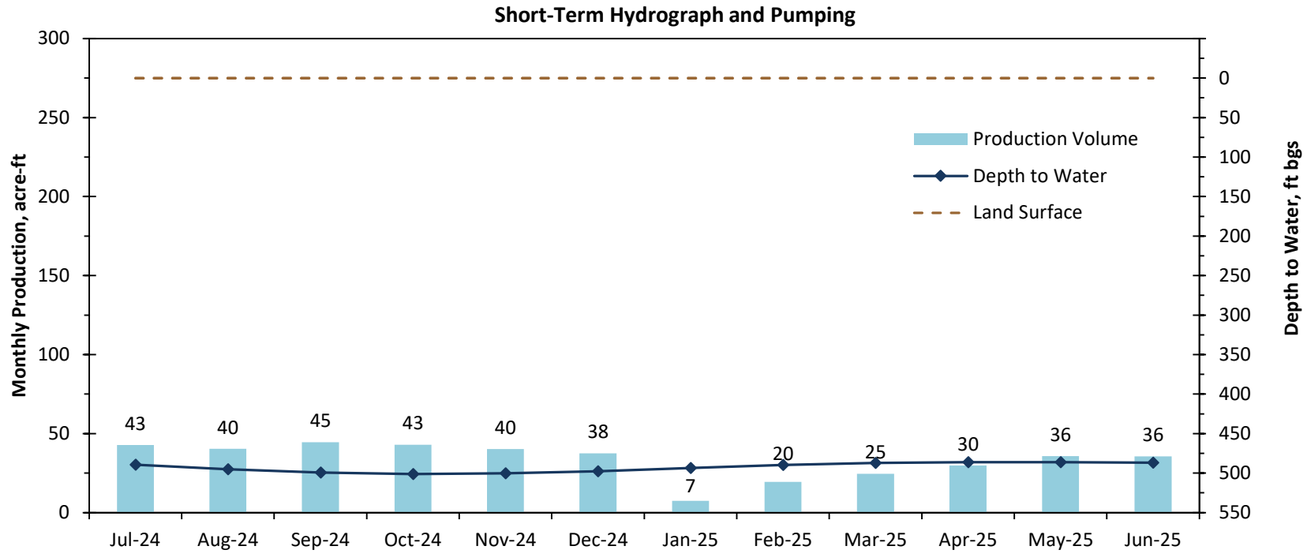


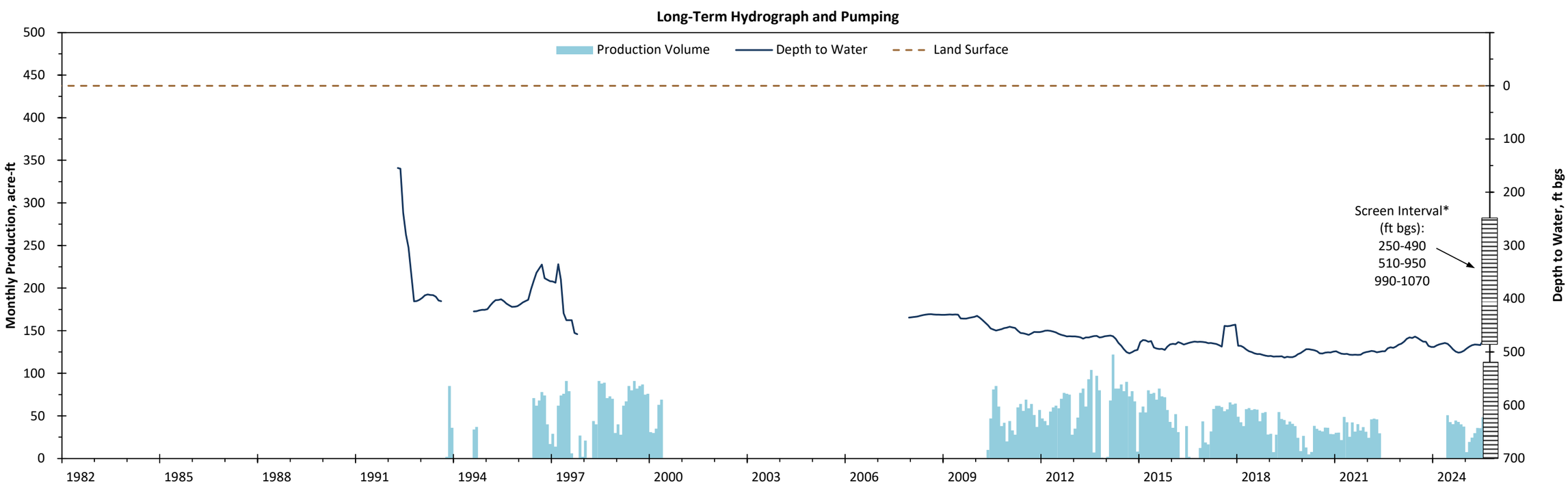
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 151

Well Performance and Recommended Production

Hydrolgic Subarea	12
Hydrolgic Subunit	Upper Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	430
Static Submergence [ft]	1,117
Comments	Constituent: Arsenic/Fluoride Over MCL?: Y on DDW approved blending plan, Back online on January 2024
Recommended Production [acre-ft] Jul-2025 to Jun-2026	425
Actual Production [acre-ft] Jul-2024 to Jun-2025	401
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**425**





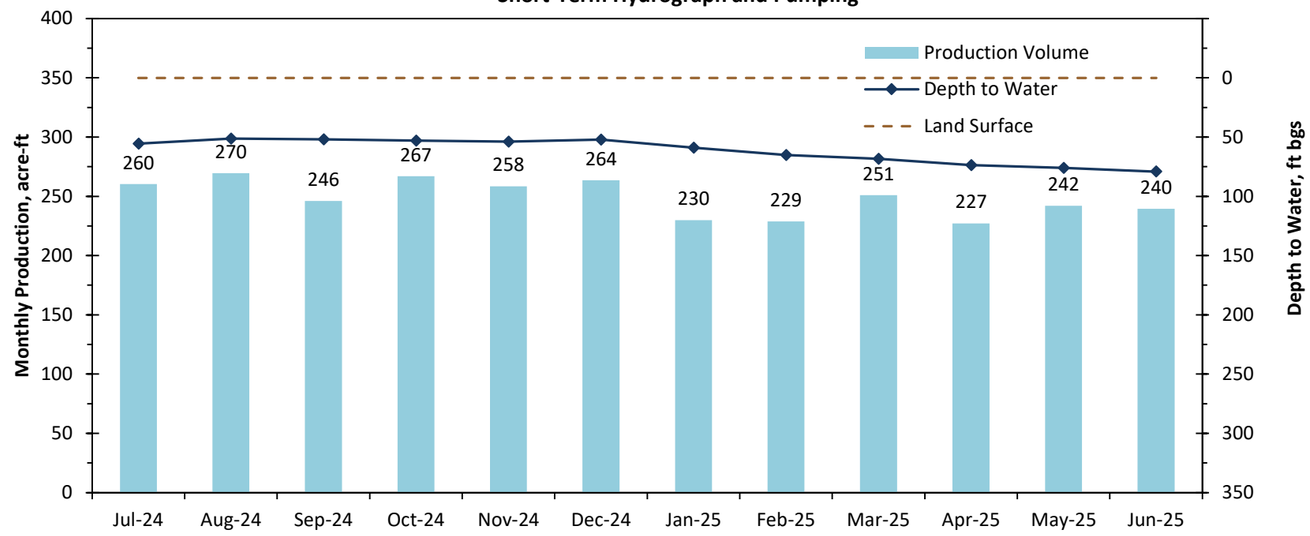
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 152

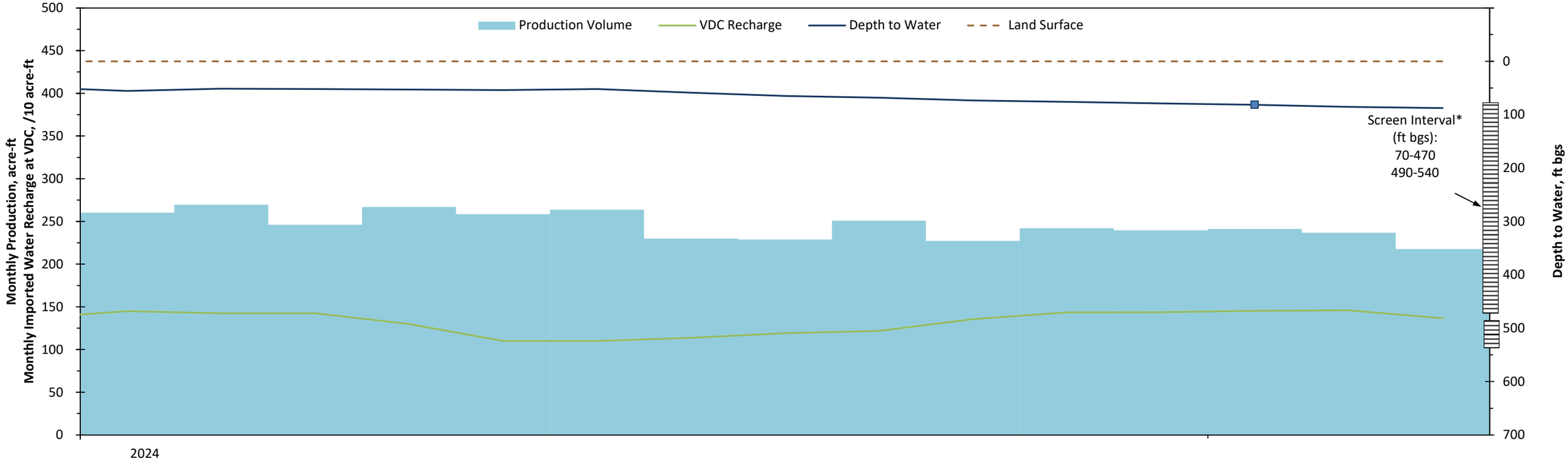
Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	1,860
Static Submergence [ft]	277
Comments	Located in VDC recharge area
Recommended Production [acre-ft] Jul-2025 to Jun-2026	3,050
Actual Production [acre-ft] Jul-2024 to Jun-2025	2,983
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**2,400**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping



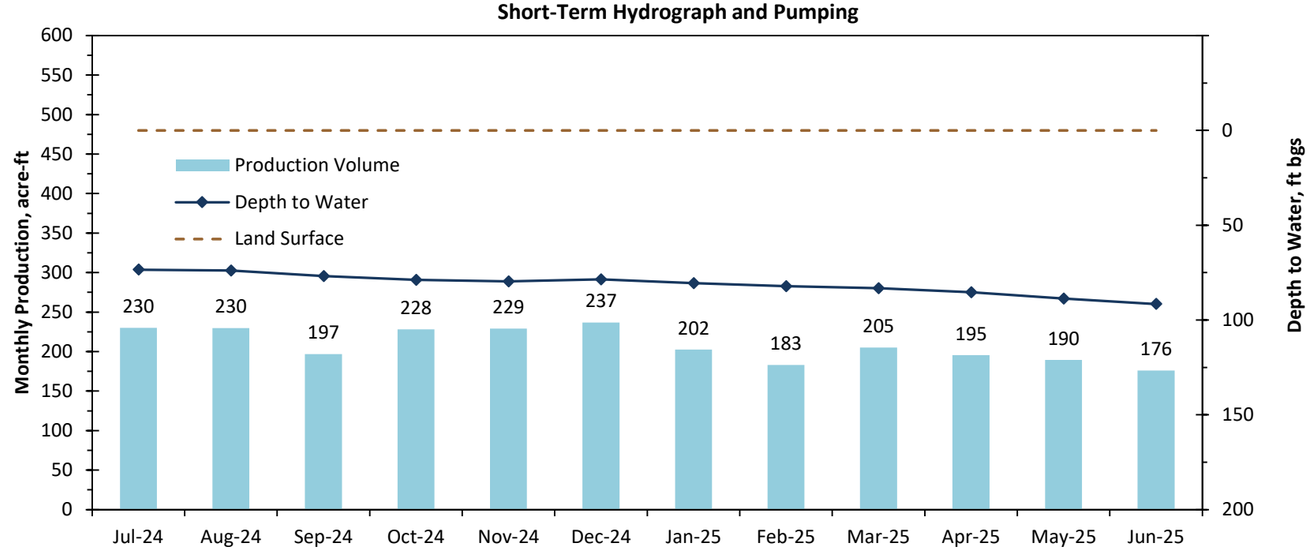
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 153

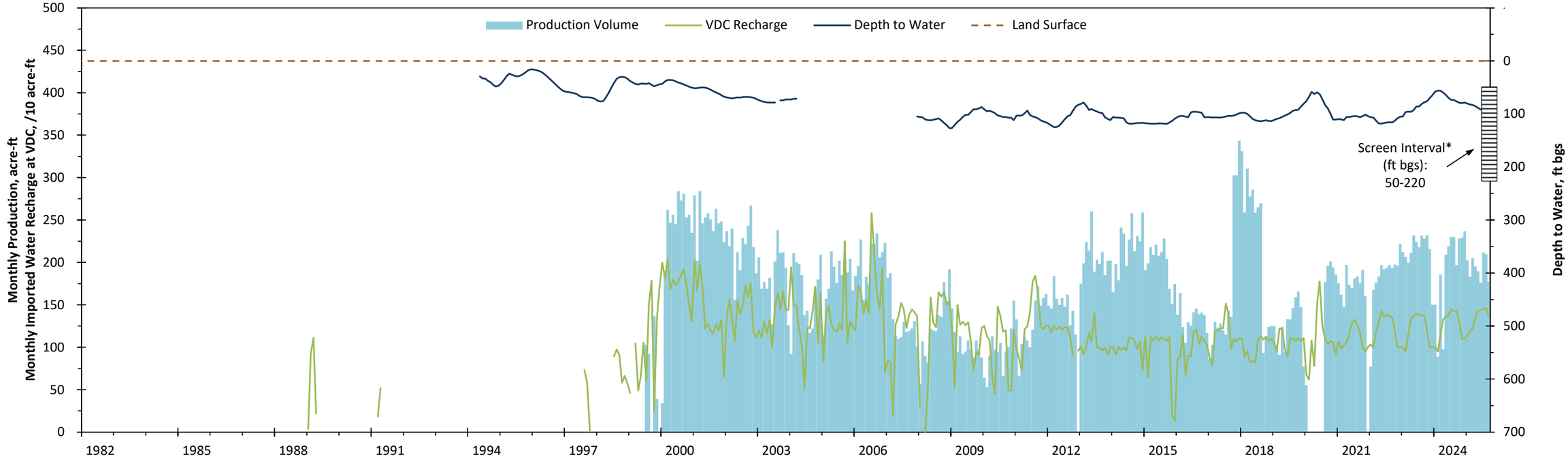
Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	1,750
Static Submergence [ft]	355
Comments	Located in VDC recharge area
Recommended Production [acre-ft] Jul-2025 to Jun-2026	2,000
Actual Production [acre-ft] Jul-2024 to Jun-2025	2,502
Percent of Total Production from Qyal	100%
Production from Qyal [acre-ft]	2,502
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**2,000**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

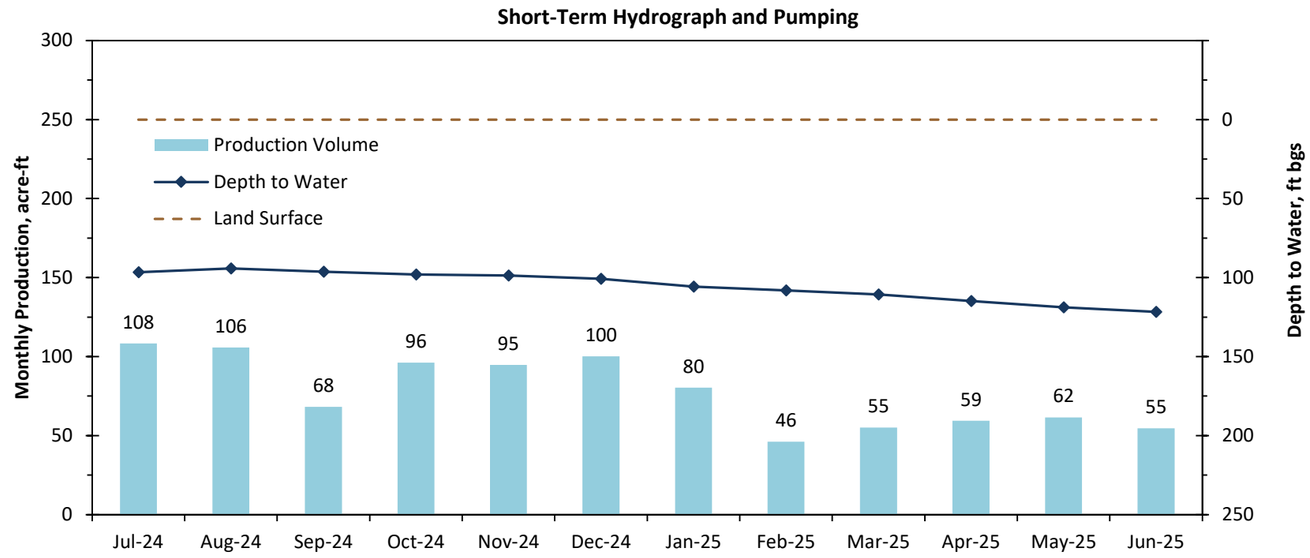


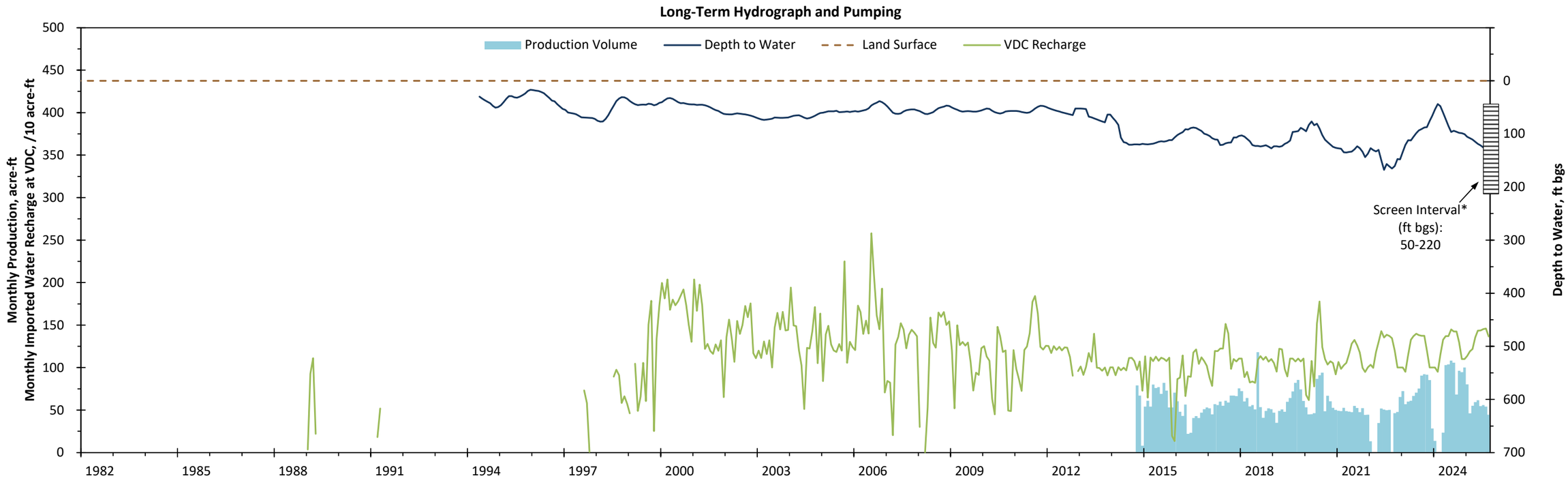
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 154

Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	760
Static Submergence [ft]	NA
Comments	Located in VDC recharge area
Recommended Production [acre-ft] Jul-2025 to Jun-2026	650
Actual Production [acre-ft] Jul-2024 to Jun-2025	930
Percent of Total Production from Qyal	100%
Production from Qyal [acre-ft]	930
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**625**



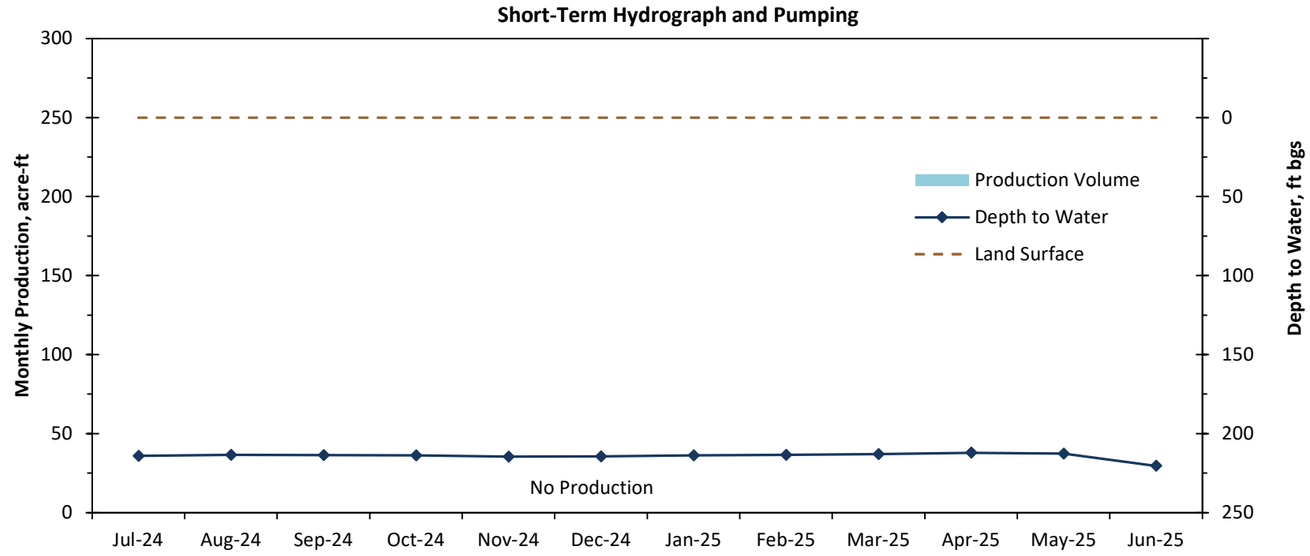


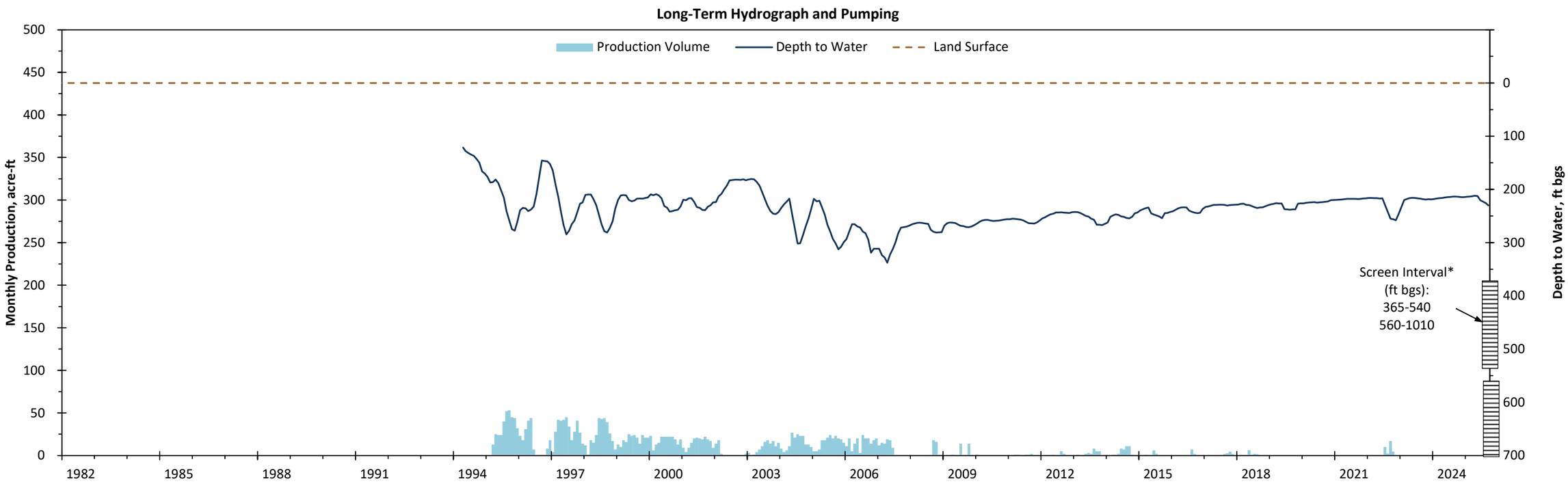
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 155

Well Performance and Recommended Production

Hydrolgic Subarea	3
Hydrolgic Subunit	North Murrieta Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	450
Static Submergence [ft]	975
Comments	Arsenic issues, may be impacted by local fault
Recommended Production [acre-ft] Jul-2025 to Jun-2026	15
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**



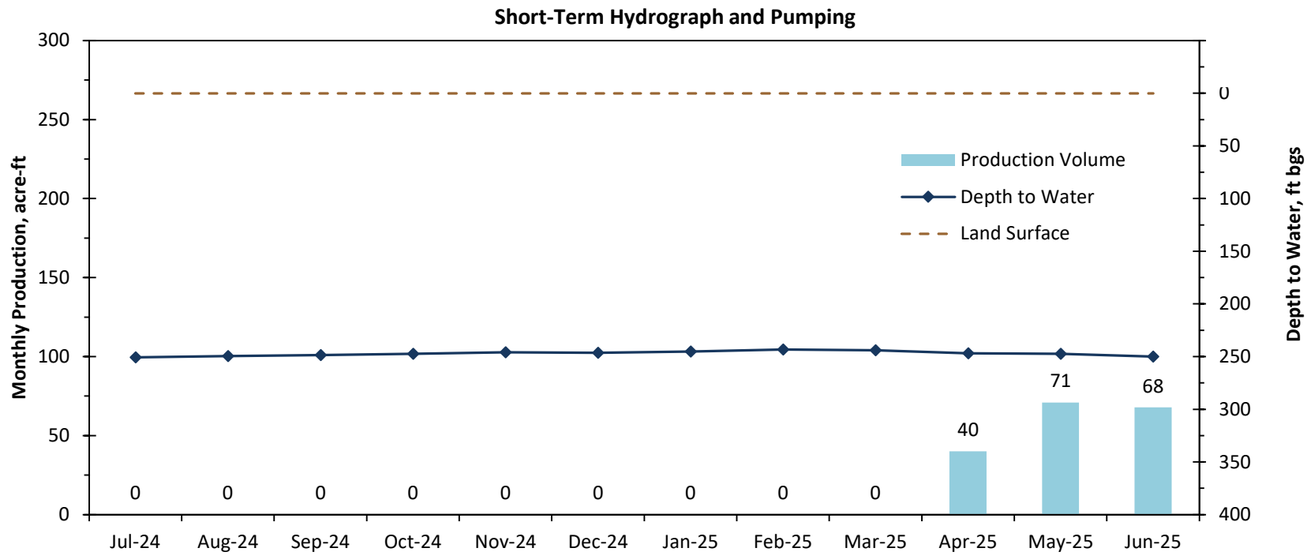


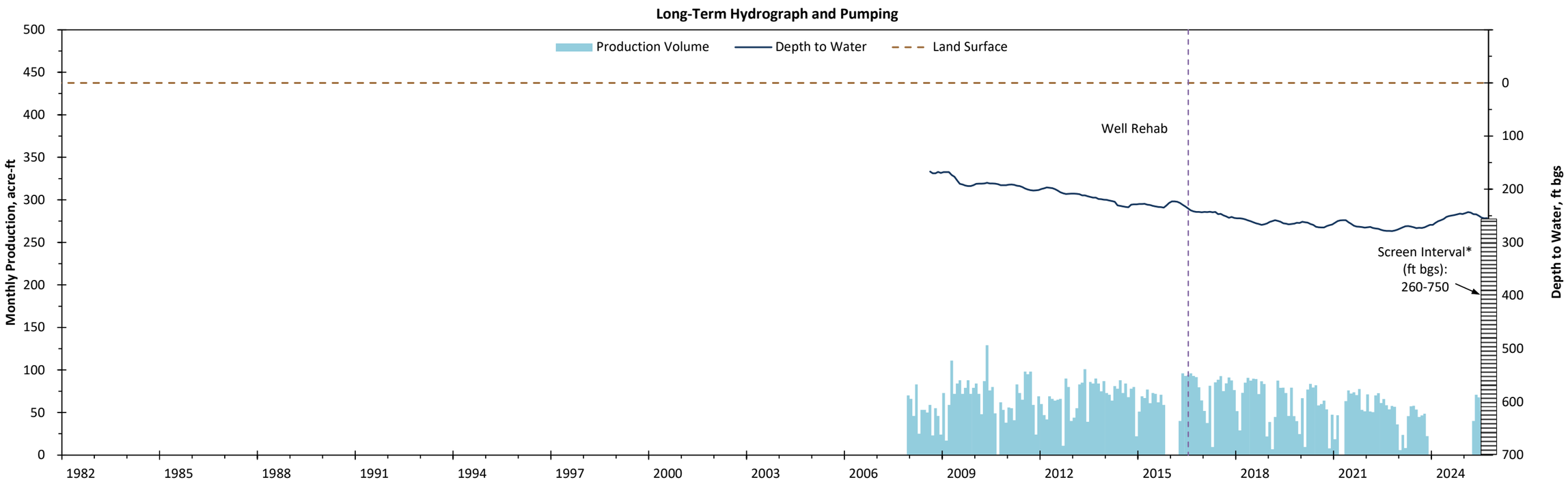
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 156

Well Performance and Recommended Production

Hydrolgic Subarea	1
Hydrolgic Subunit	North Murrieta Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	470
Static Submergence [ft]	424
Comments	Constituent: Arsenic Over MCL?: N around 1/2 the MCL, Increased from 475 AFY to 575 AFY (review modeling results); Rehabbed in 2016
Recommended Production [acre-ft] Jul-2025 to Jun-2026	475
Actual Production [acre-ft] Jul-2024 to Jun-2025	179
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**575**



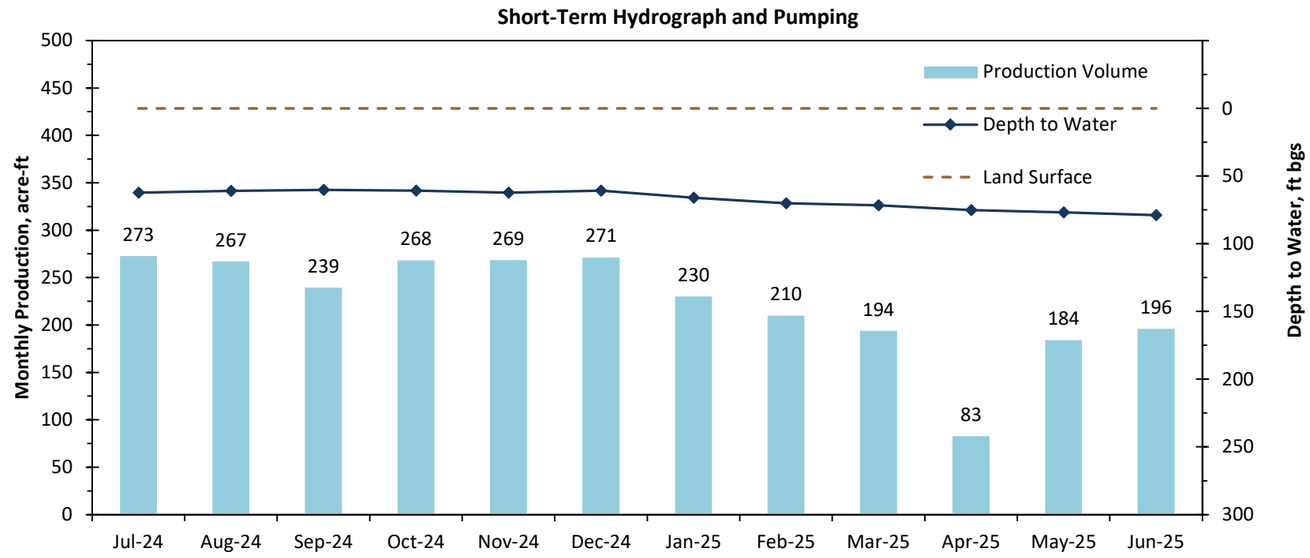


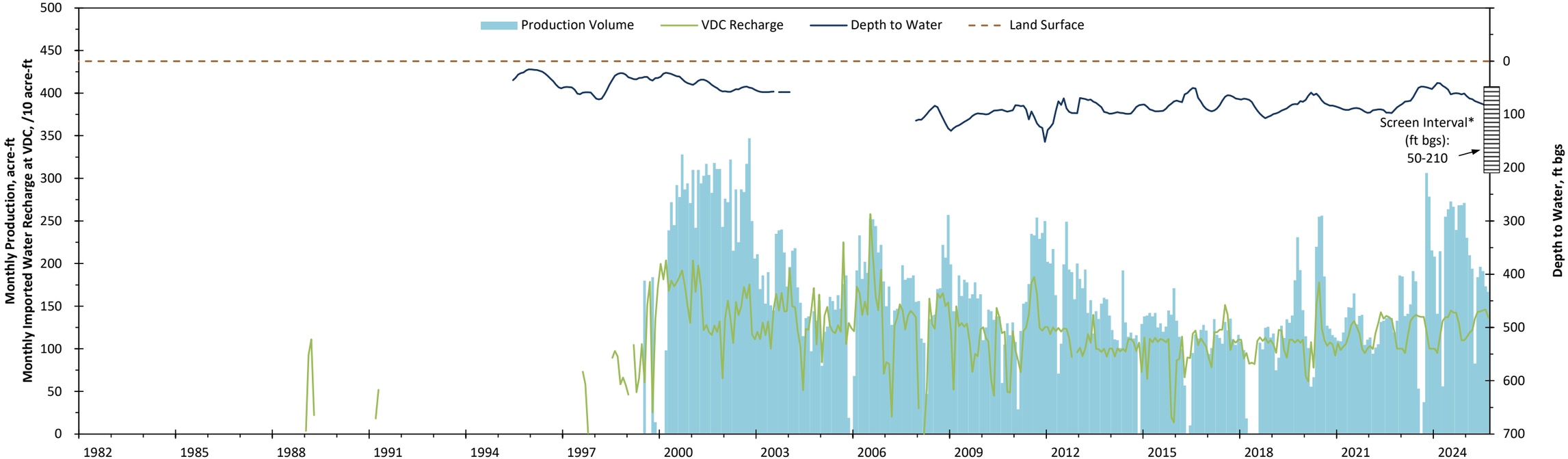
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 157

Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	2,000
Static Submergence [ft]	326
Comments	Located in VDC recharge area
Recommended Production [acre-ft] Jul-2025 to Jun-2026	2,150
Actual Production [acre-ft] Jul-2024 to Jun-2025	2,684
Percent of Total Production from Qyal	100%
Production from Qyal [acre-ft]	2,684
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**2,000**





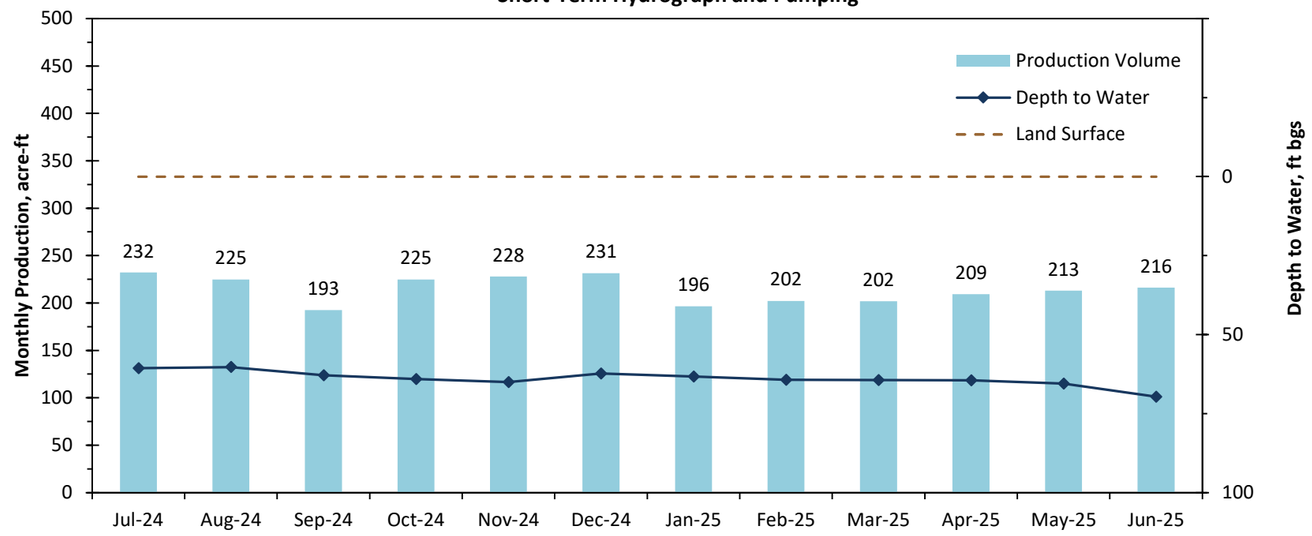
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 158

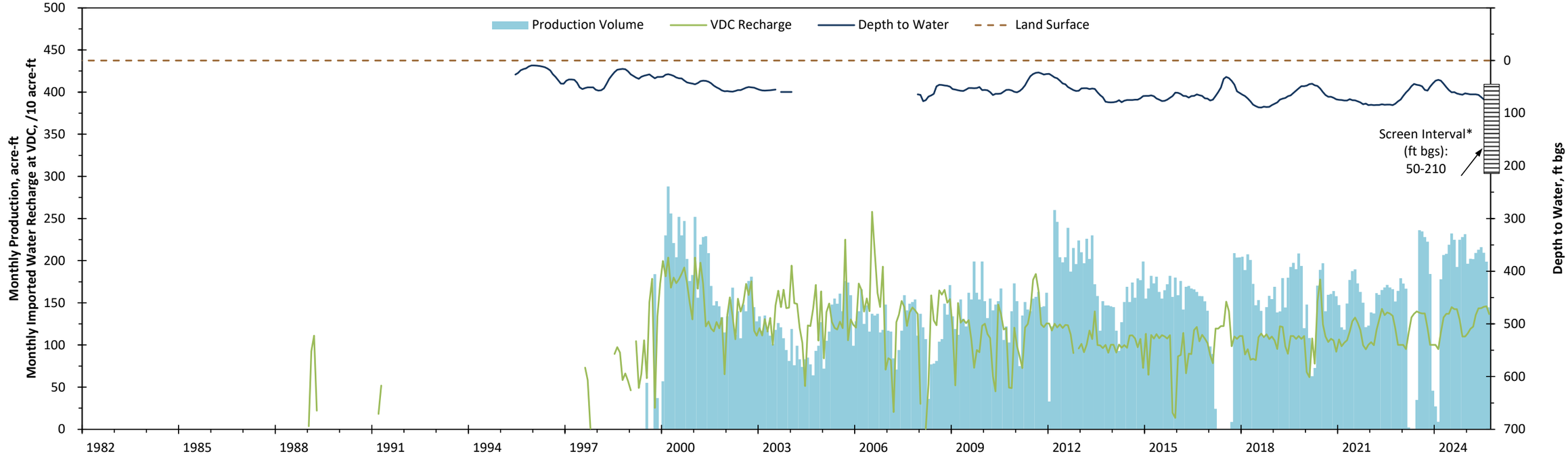
Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	1,820
Static Submergence [ft]	277
Comments	Located in VDC recharge area
Recommended Production [acre-ft] Jul-2025 to Jun-2026	1,850
Actual Production [acre-ft] Jul-2024 to Jun-2025	2,572
Percent of Total Production from Qyal	100%
Production from Qyal [acre-ft]	2,572
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**1,850**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

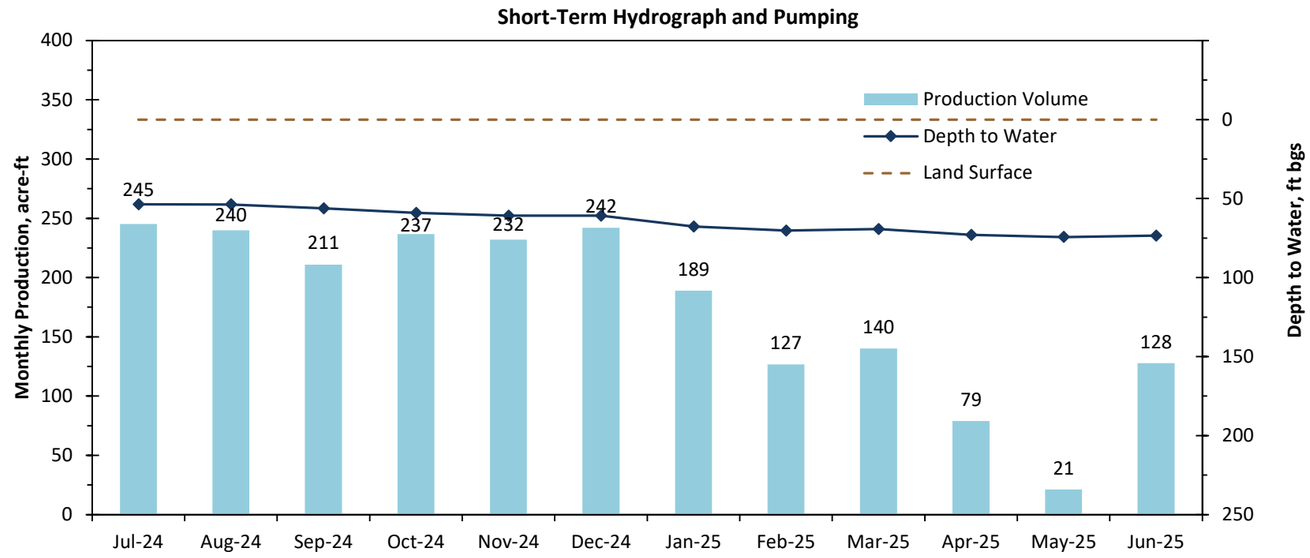


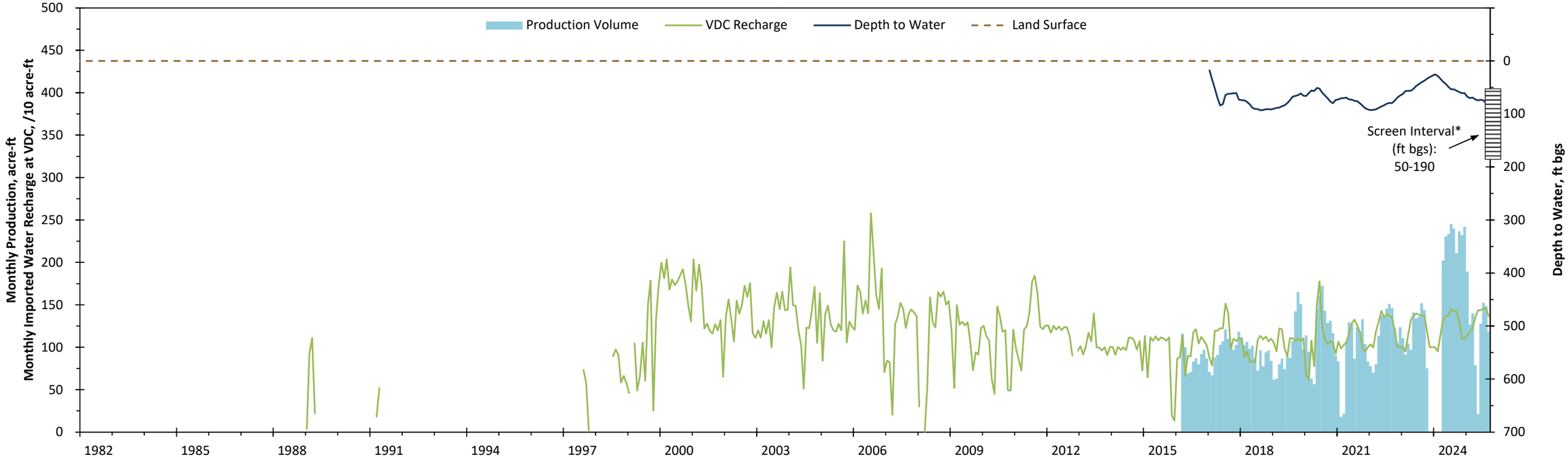
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 161

Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	1,760
Static Submergence [ft]	NA
Comments	Located in VDC recharge area
Recommended Production [acre-ft] Jul-2025 to Jun-2026	1,500
Actual Production [acre-ft] Jul-2024 to Jun-2025	2,091
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**1,500**





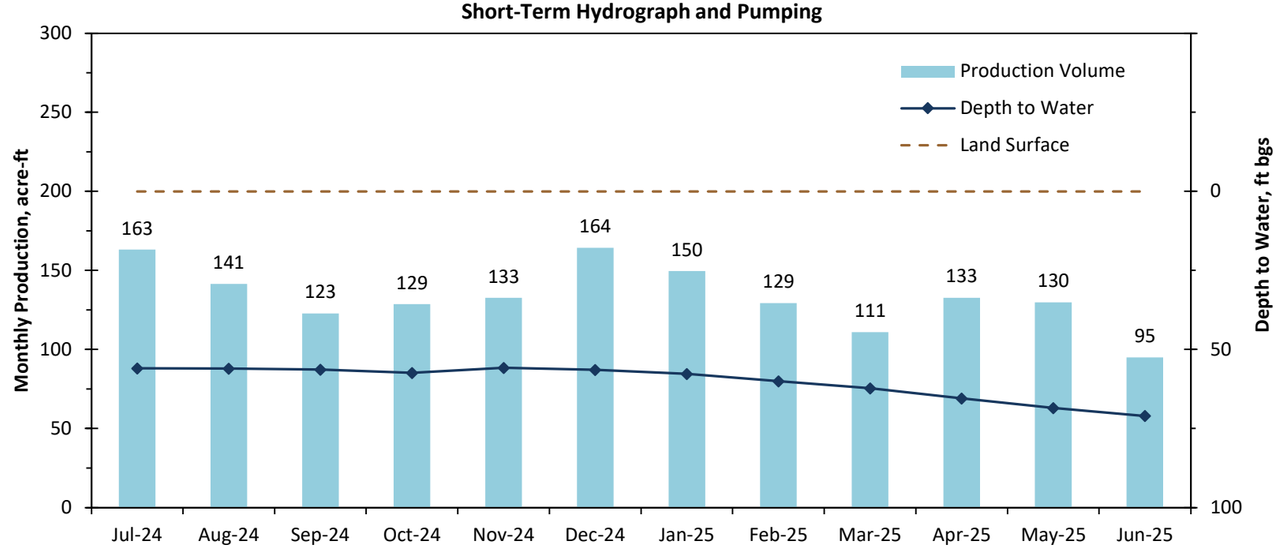
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 164

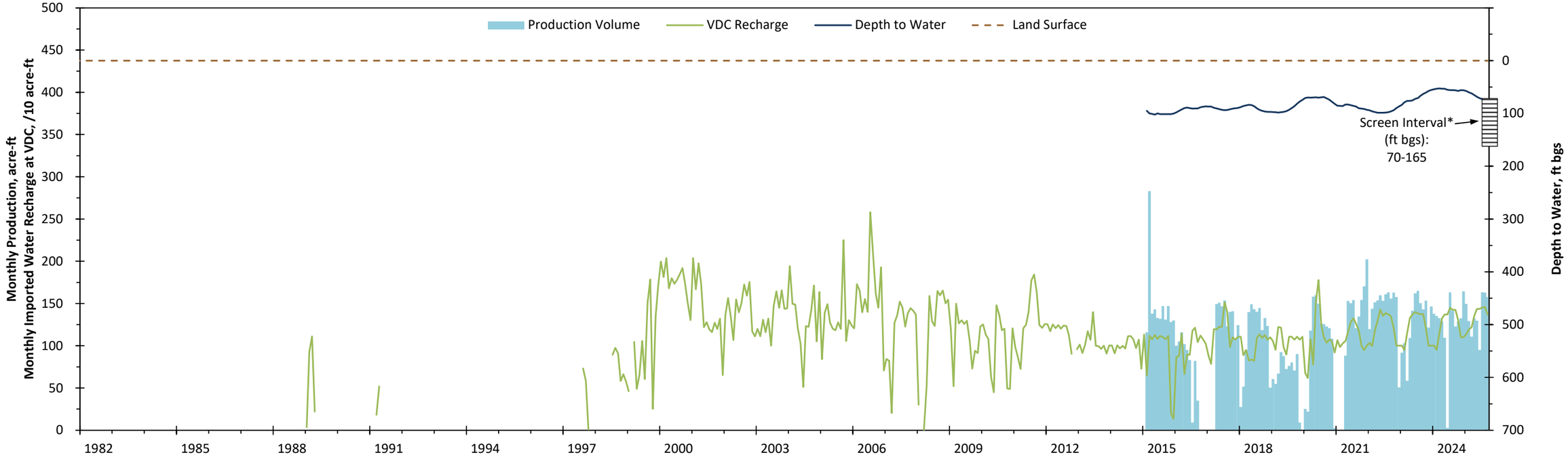
Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	1,340
Static Submergence [ft]	NA
Comments	Replaced old Well No. 110; possible pump column issues
Recommended Production [acre-ft] Jul-2025 to Jun-2026	1,700
Actual Production [acre-ft] Jul-2024 to Jun-2025	1,600
Percent of Total Production from Qyal	97%
Production from Qyal [acre-ft]	1,552
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**1,700**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping



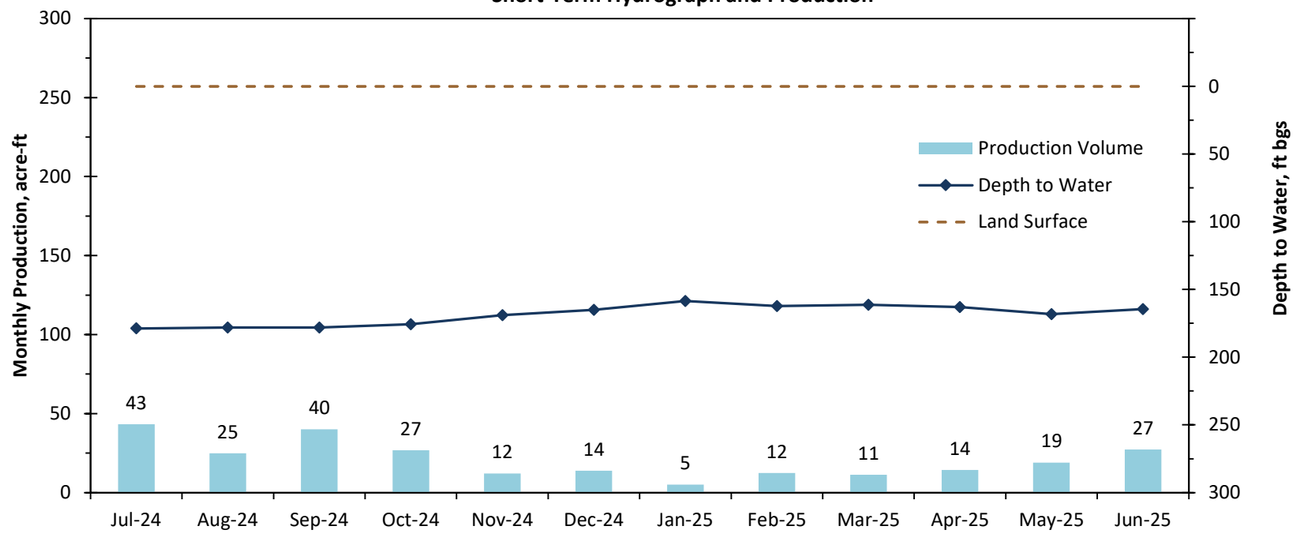
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 176 (124)

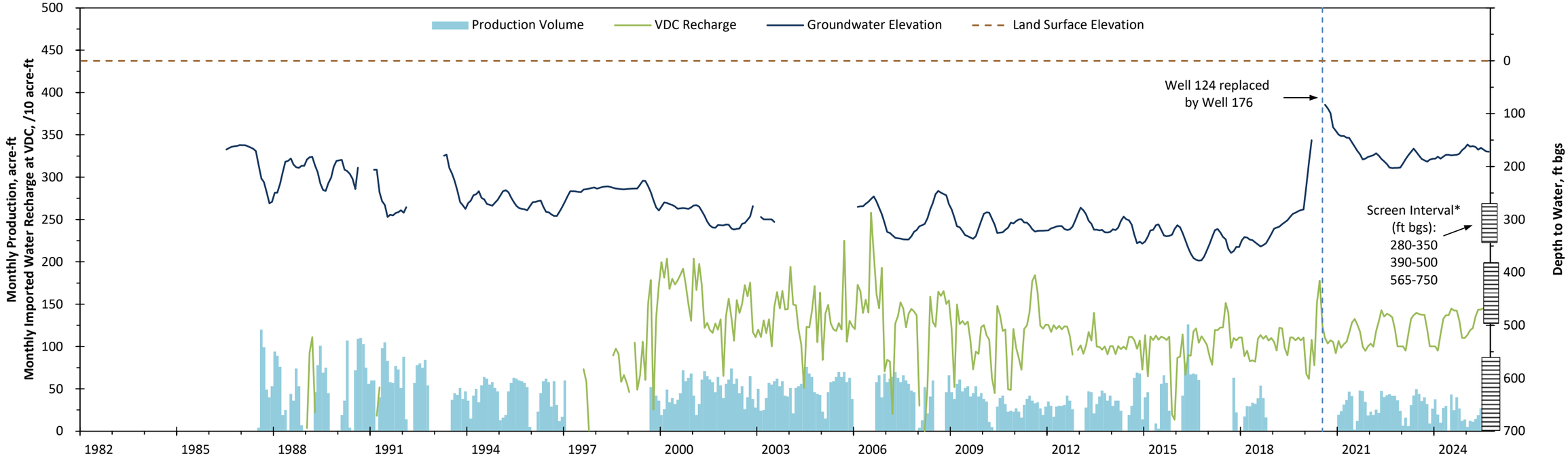
Well Performance and Recommended Production

Hydrolgic Subarea	12
Hydrolgic Subunit	Pauba Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	450
Static Submergence [ft]	734
Comments	Constituent: Nitrate Over MCL?: N around 1/2 the MCL, Replaced Well No. 124; On-line July 2020
Recommended Production [acre-ft] Jul-2025 to Jun-2026	250
Actual Production [acre-ft] Jul-2024 to Jun-2025	250
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**250**

Short-Term Hydrograph and Production



Long-Term Hydrograph and Production



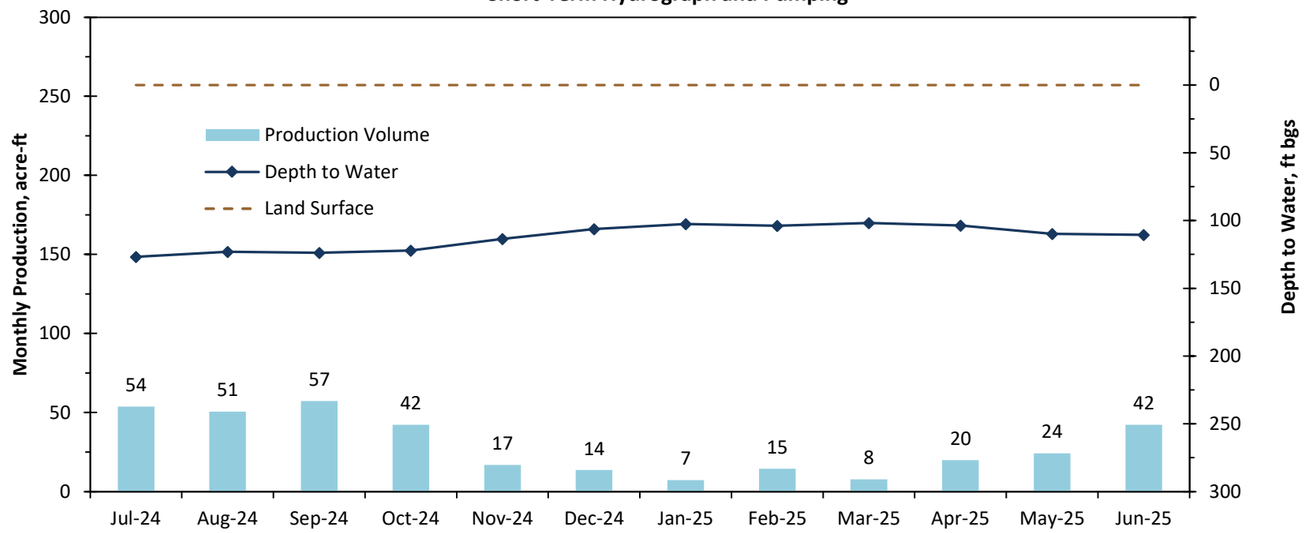
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 177

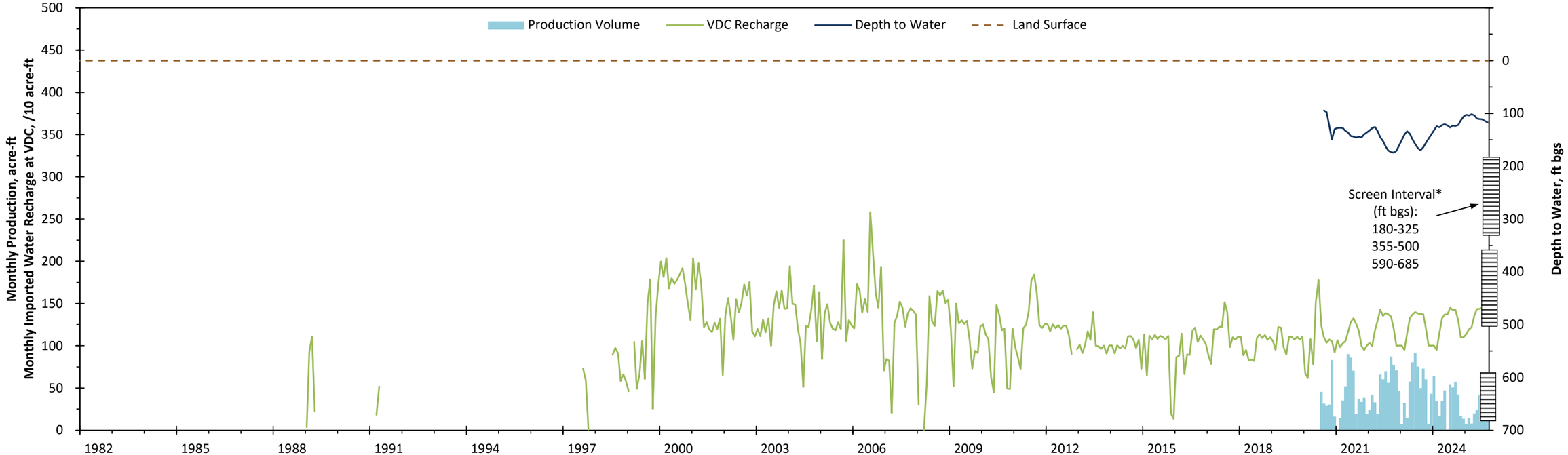
Well Performance and Recommended Production

Hydrolgic Subarea	14
Hydrolgic Subunit	Pauba Valley
Aquifer	Combined
Instantaneous Yield [gpm]	770
Static Submergence [ft]	NA
Comments	On-line June 2020
Recommended Production [acre-ft] Jul-2025 to Jun-2026	400
Actual Production [acre-ft] Jul-2024 to Jun-2025	350
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**450**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

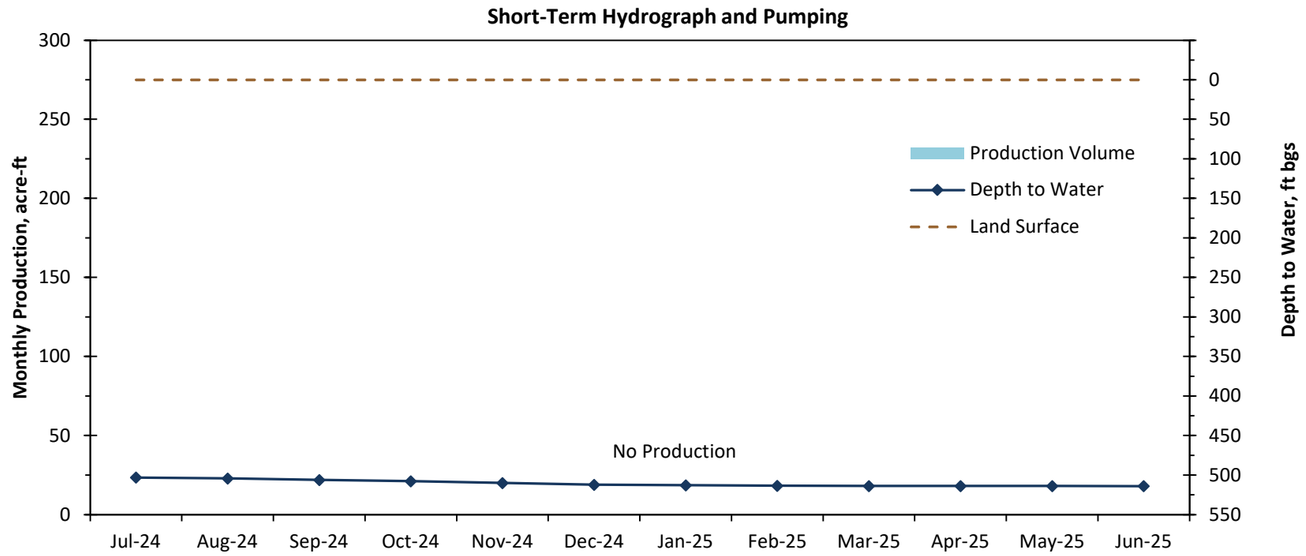


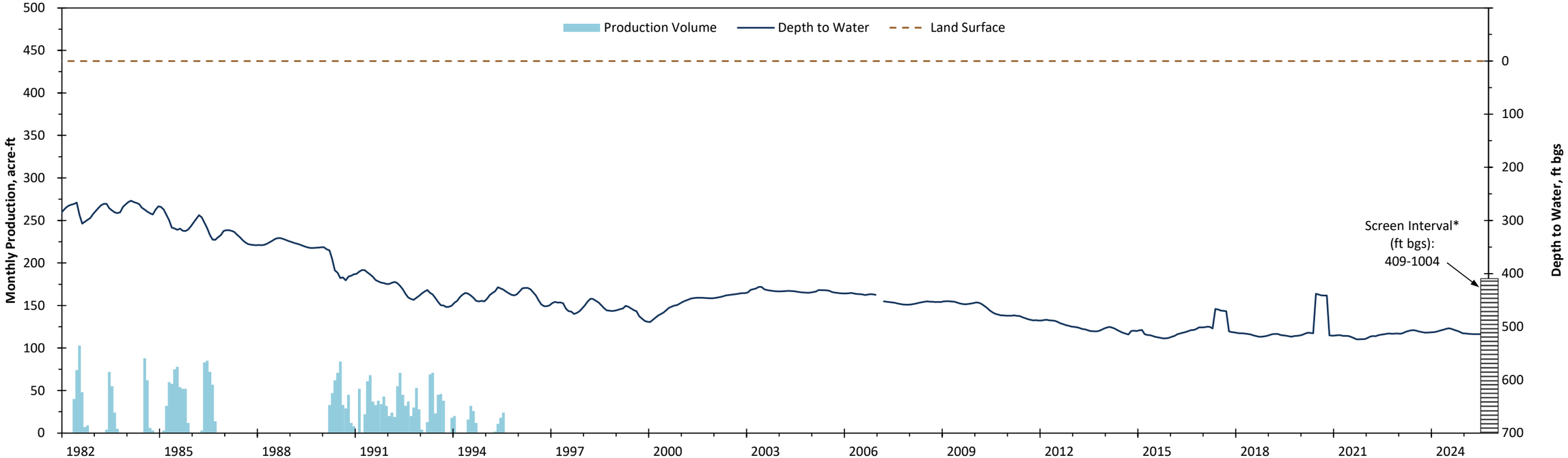
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 201

Well Performance and Recommended Production

Hydrolgic Subarea	16
Hydrolgic Subunit	Upper Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	NA
Static Submergence [ft]	-
Comments	Inactive since 1995; screen interval partially dewatered
Recommended Production [acre-ft] Jul-2025 to Jun-2026	-
Actual Production [acre-ft] Jul-2024 to Jun-2025	-
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	-





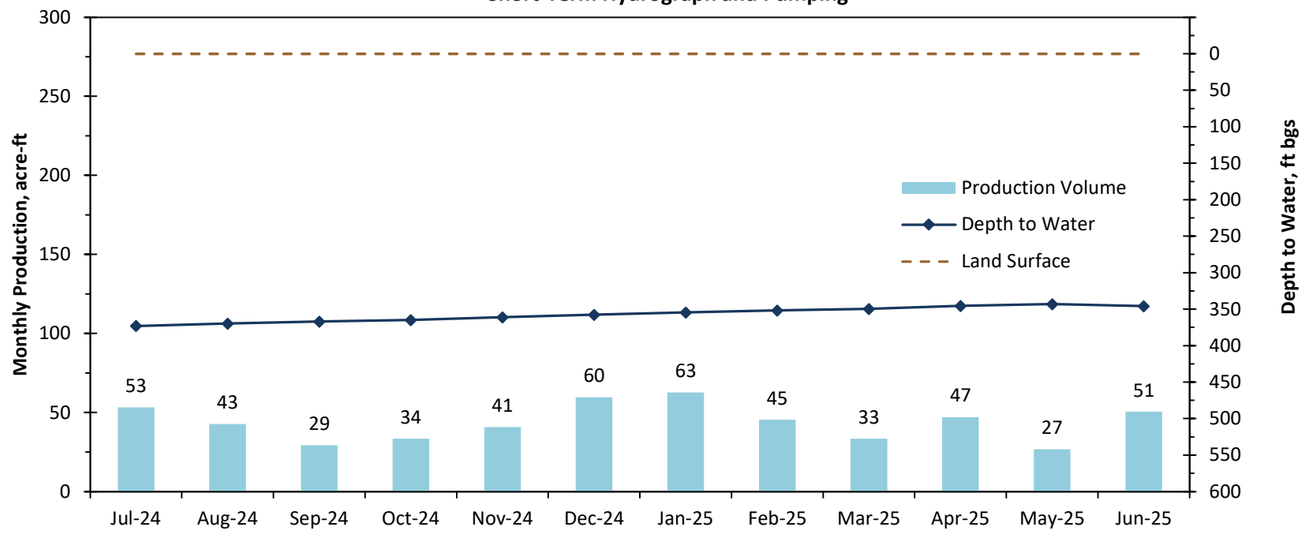
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 203

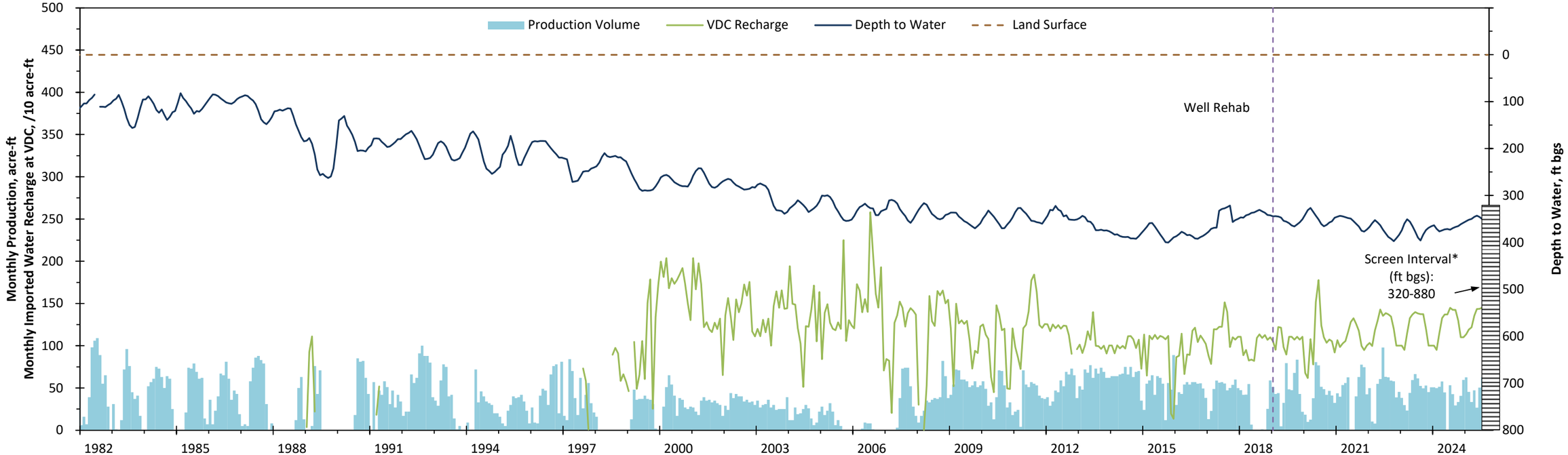
Well Performance and Recommended Production

Hydrolgic Subarea	13
Hydrolgic Subunit	Pauba Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	560
Static Submergence [ft]	950
Comments	Constituent: Arsenic Over MCL?: N around 2/3 the MCL, Rehabbed in January 2019
Recommended Production [acre-ft] Jul-2025 to Jun-2026	500
Actual Production [acre-ft] Jul-2024 to Jun-2025	525
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**500**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping



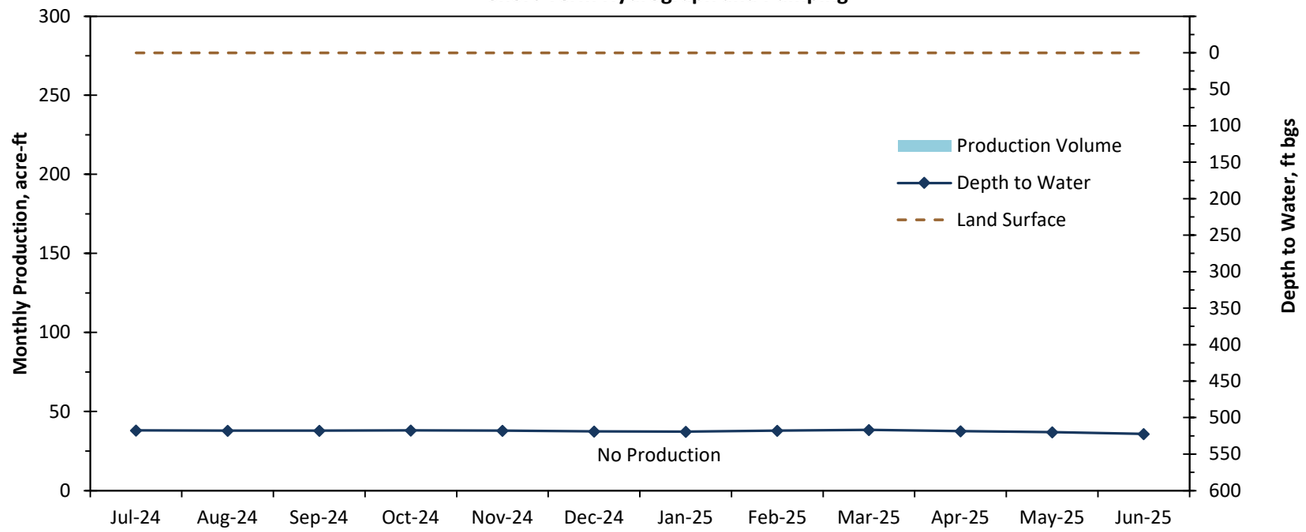
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 208

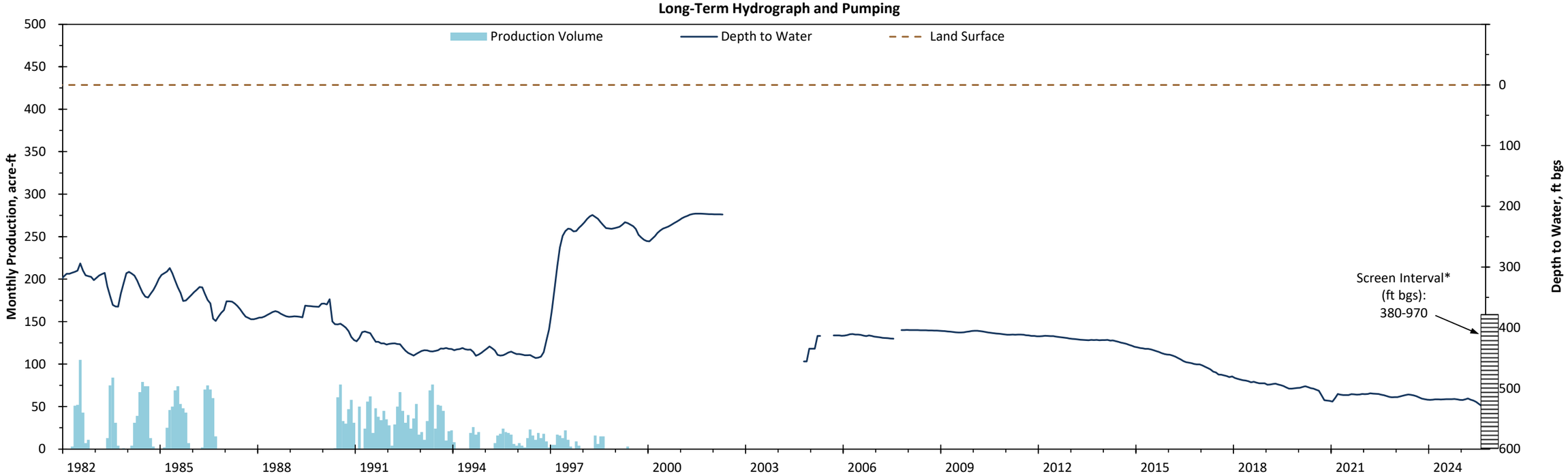
Well Performance and Recommended Production

Hydrolgic Subarea	16
Hydrolgic Subunit	Upper Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	NA
Static Submergence [ft]	-
Comments	Inactive since 1999
Recommended Production [acre-ft] Jul-2025 to Jun-2026	-
Actual Production [acre-ft] Jul-2024 to Jun-2025	-
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	-

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

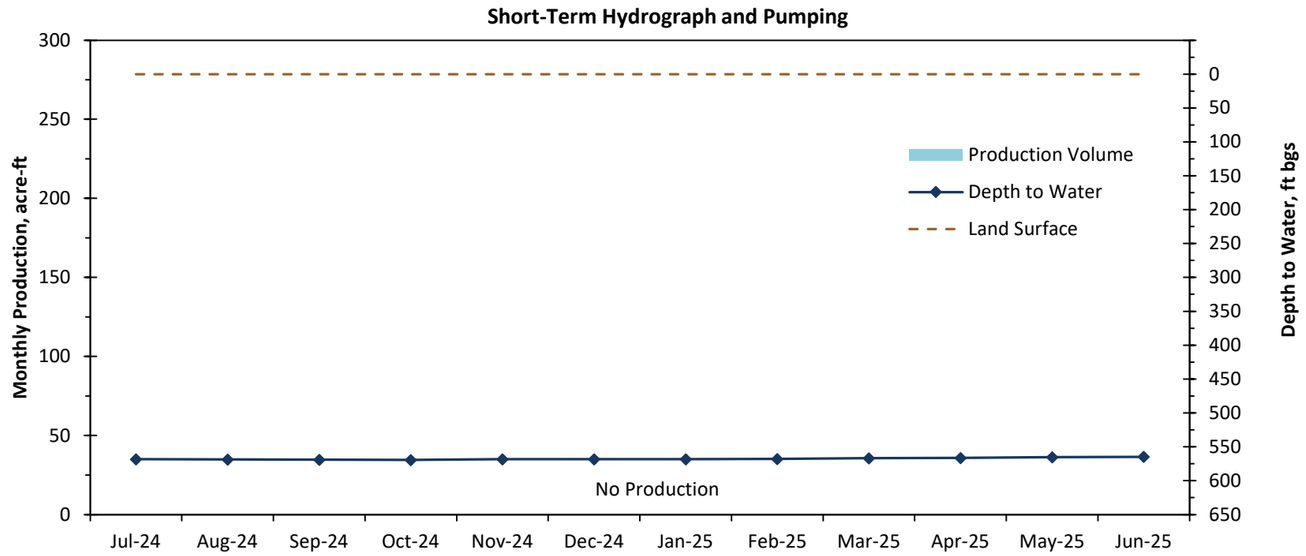


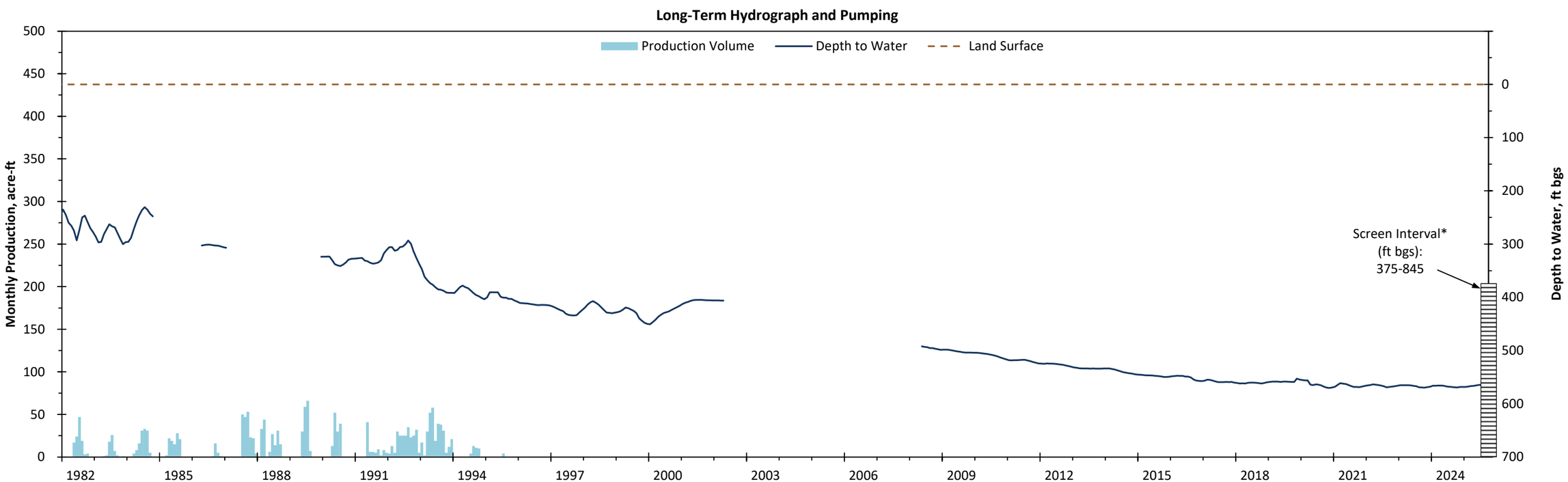
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 209

Well Performance and Recommended Production

Hydrolgic Subarea	16
Hydrolgic Subunit	Upper Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	NA
Static Submergence [ft]	-
Comments	Inactive since 1995; screen interval partially dewatered; Temecula Aquifer Index Well
Recommended Production [acre-ft] Jul-2025 to Jun-2026	-
Actual Production [acre-ft] Jul-2024 to Jun-2025	-
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	-





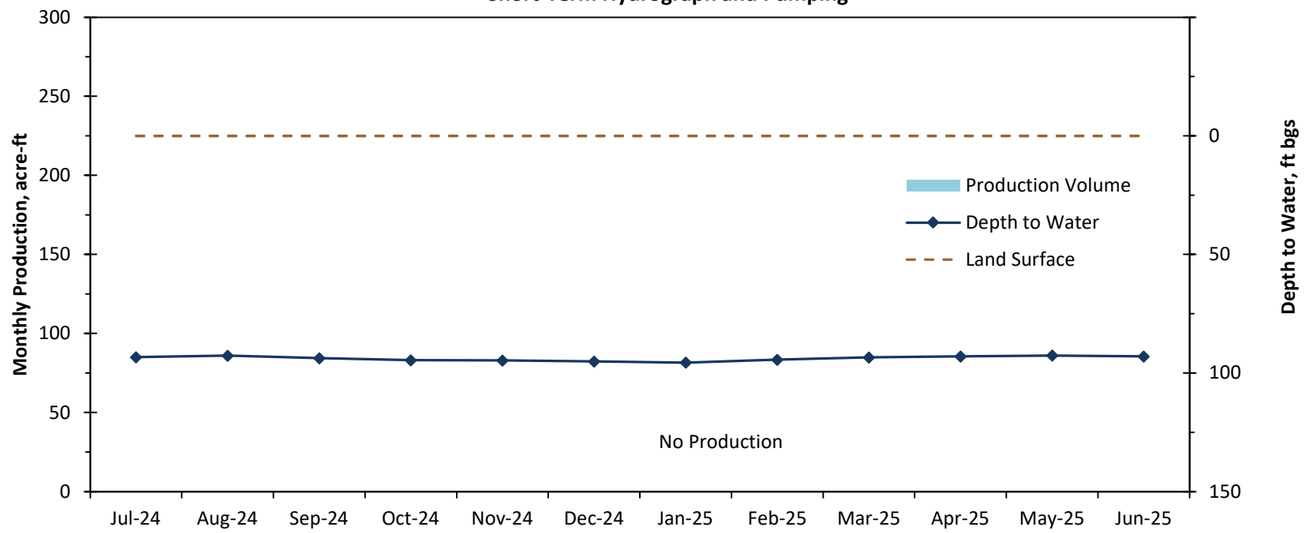
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 211

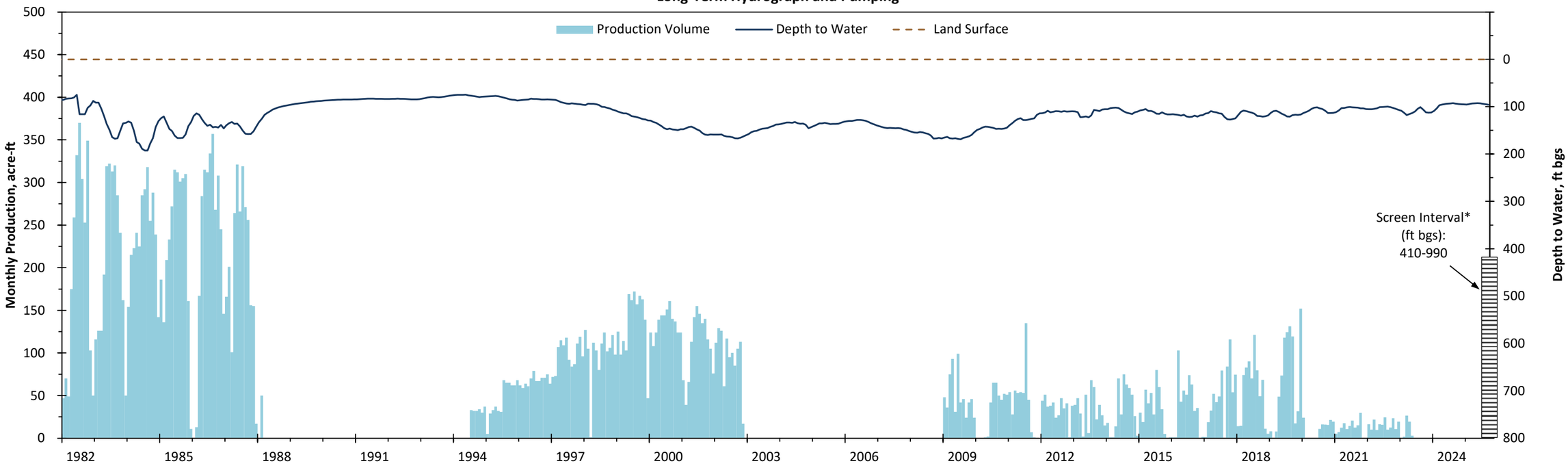
Well Performance and Recommended Production

Hydrolgic Subarea	7
Hydrolgic Subunit	Wolf Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	1,520
Static Submergence [ft]	467
Comments	Constituent: PFAS Over MCL?: NA Offline due to PFAS detections and will remain offline until further notice, Temecula Aquifer Index Well
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

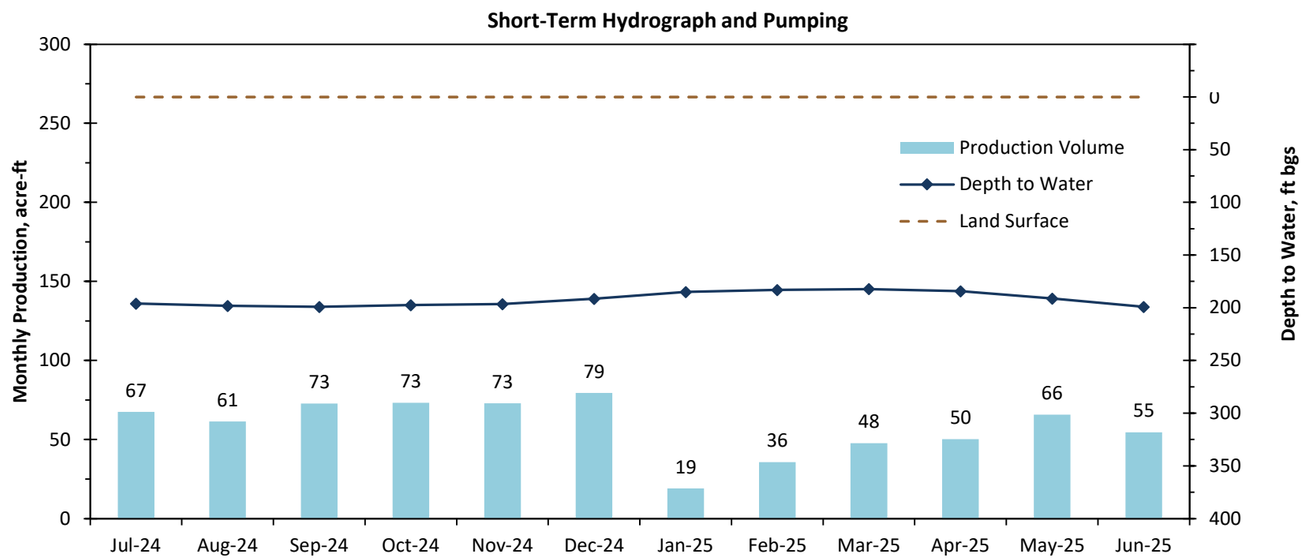


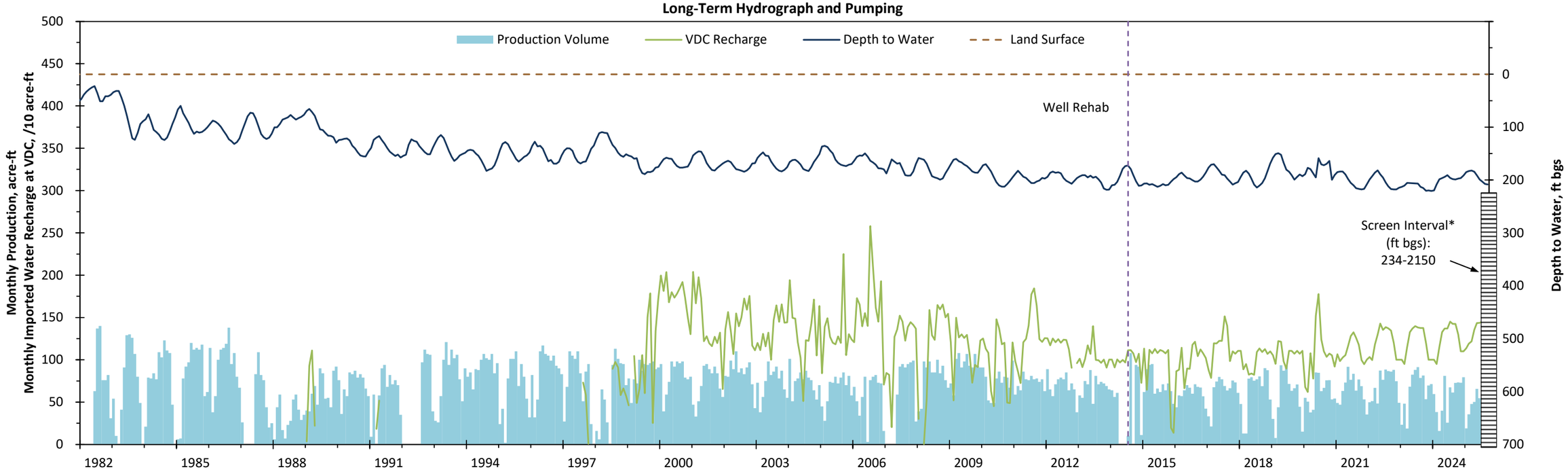
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 217

Well Performance and Recommended Production

Hydrolgic Subarea	8
Hydrolgic Subunit	Pauba Valley
Aquifer	Temecula
Instantaneous Yield [gpm]	650
Static Submergence [ft]	538
Comments	Constituent: Arsenic Over MCL?: N around 2/3 the MCL, To be rehabbed in 2026; Temecula Aquifer Index Well
Recommended Production [acre-ft] Jul-2025 to Jun-2026	700
Actual Production [acre-ft] Jul-2024 to Jun-2025	700
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**700**



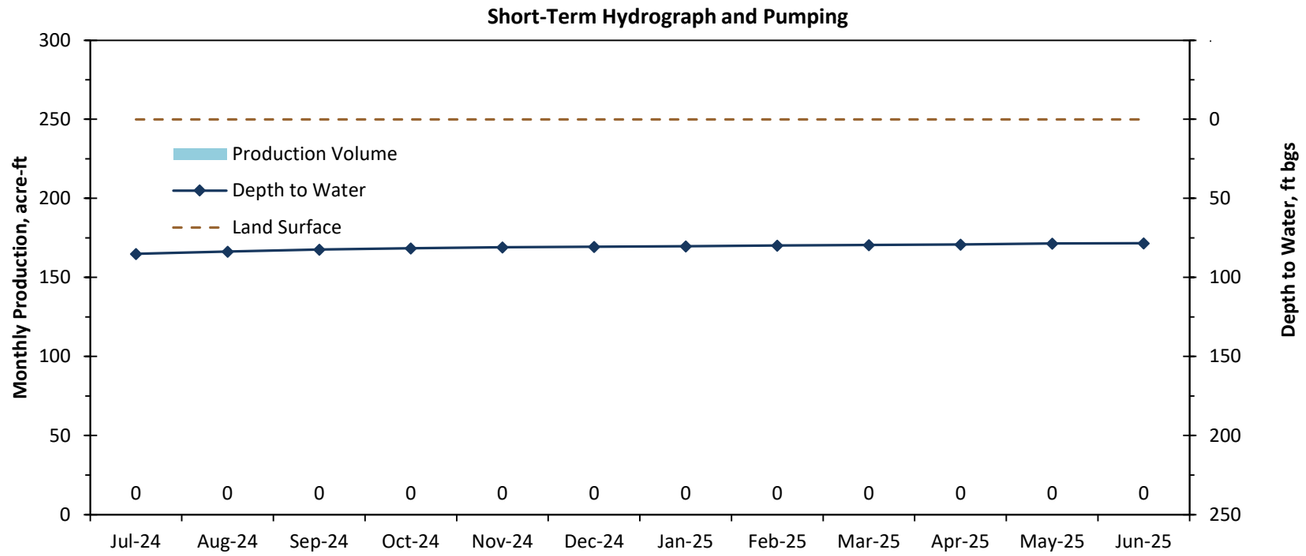


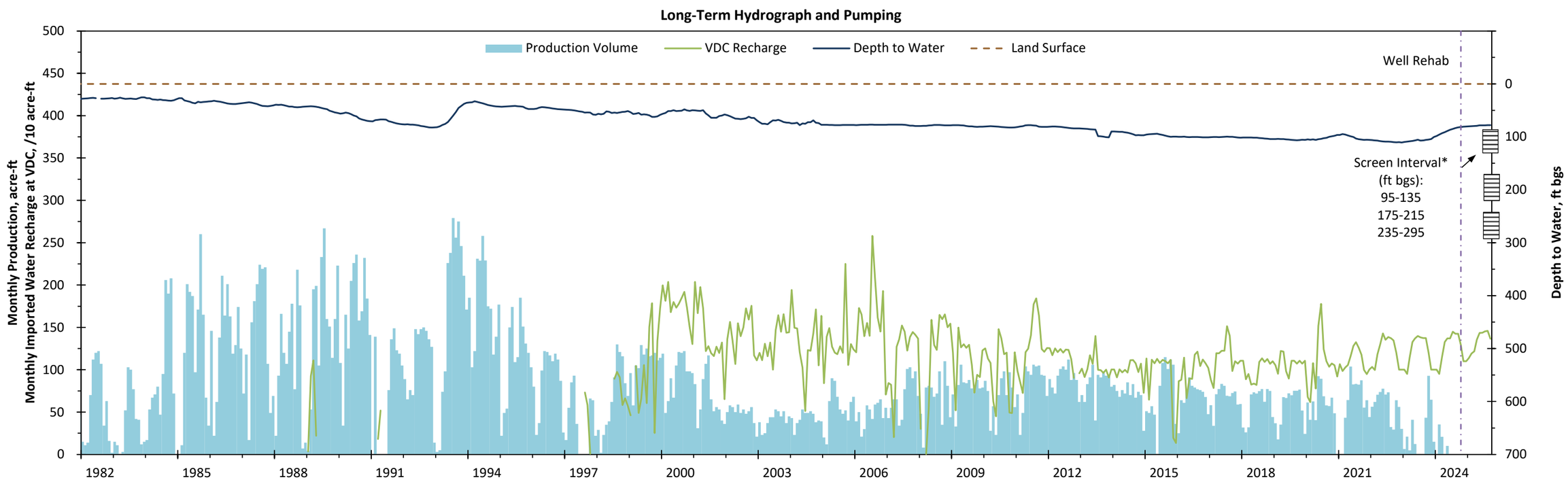
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 232

Well Performance and Recommended Production

Hydrolgic Subarea	12
Hydrolgic Subunit	Pauba Valley
Aquifer	Combined
Instantaneous Yield [gpm]	810
Static Submergence [ft]	234
Comments	Constituent: Nitrate Over MCL?: N around 1/2 the MCL, Rehabbed in October 2025
Recommended Production [acre-ft] Jul-2025 to Jun-2026	250
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	92%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**750**





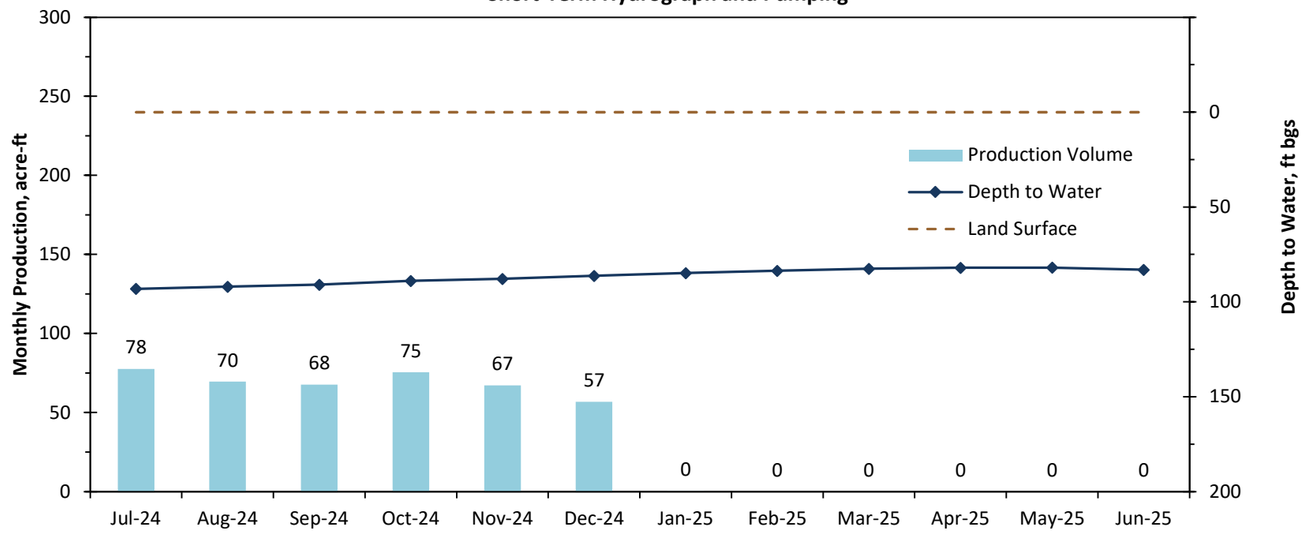
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 233

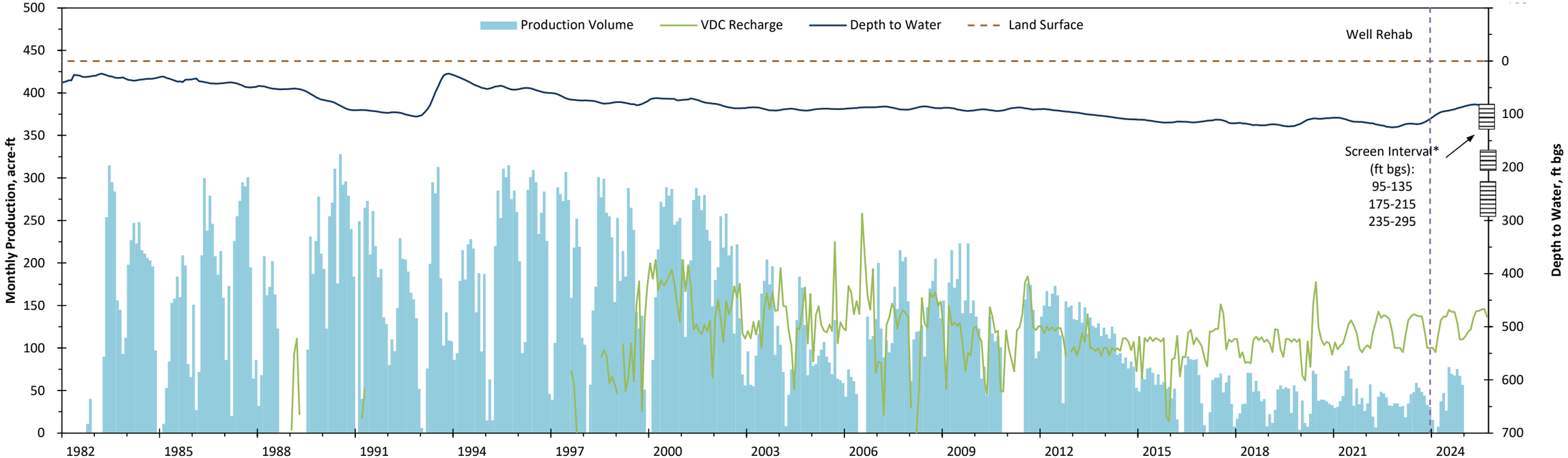
Well Performance and Recommended Production

Hydrolgic Subarea	12
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	800
Static Submergence [ft]	227
Comments	Rehabbed and back online in October 2025 Target water level is around 1,140 ft amsl (close to 2010 level)
Recommended Production [acre-ft] Jul-2025 to Jun-2026	400
Actual Production [acre-ft] Jul-2024 to Jun-2025	414
Percent of Total Production from Qyal	88%
Production from Qyal [acre-ft]	365
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**1,000**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

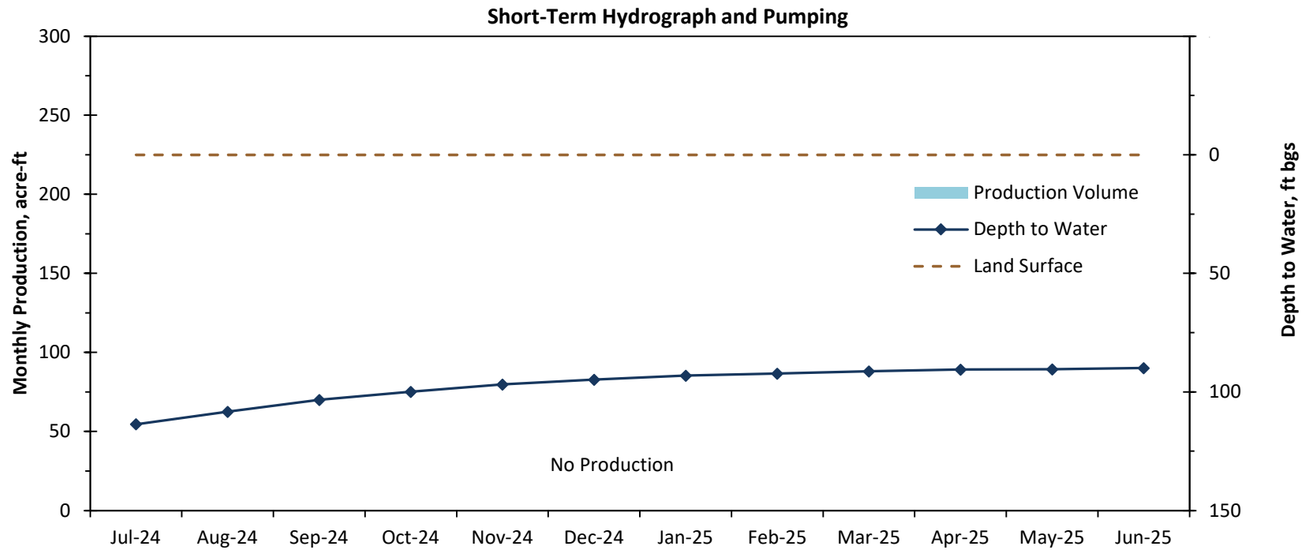


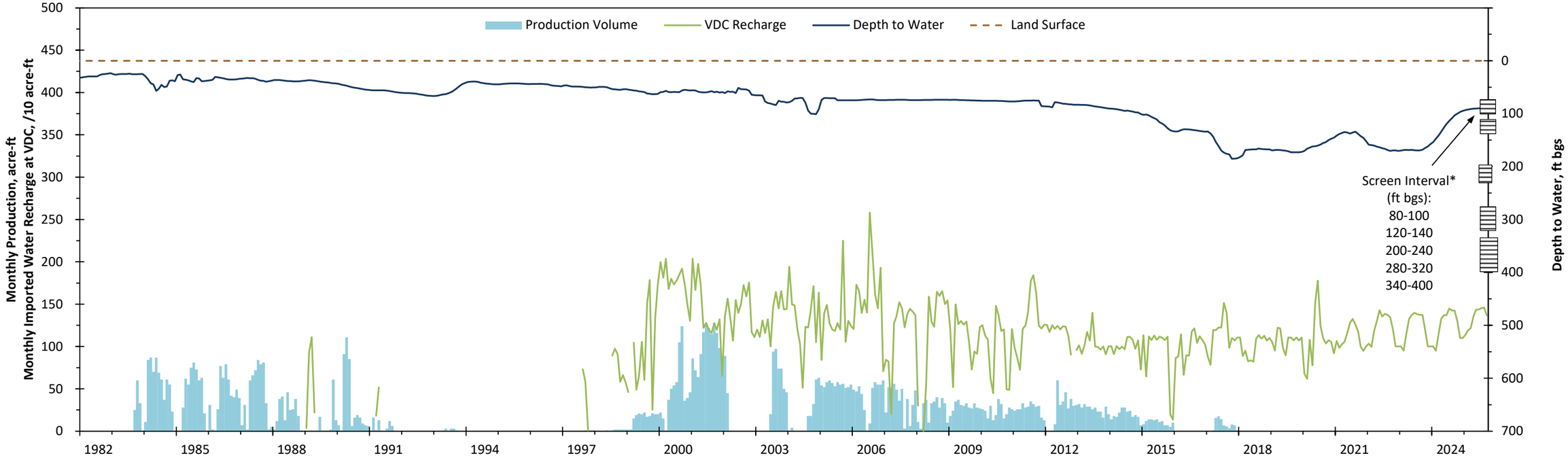
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 234

Well Performance and Recommended Production

Hydrolgic Subarea	11
Hydrolgic Subunit	Pauba Valley
Aquifer	Combined
Instantaneous Yield [gpm]	0
Static Submergence [ft]	421
Comments	No pumping until water level back to 1,100 ft amsl
Recommended Production [acre-ft] Jul-2025 to Jun-2026	0
Actual Production [acre-ft] Jul-2024 to Jun-2025	0
Percent of Total Production from Qyal	74%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**0**





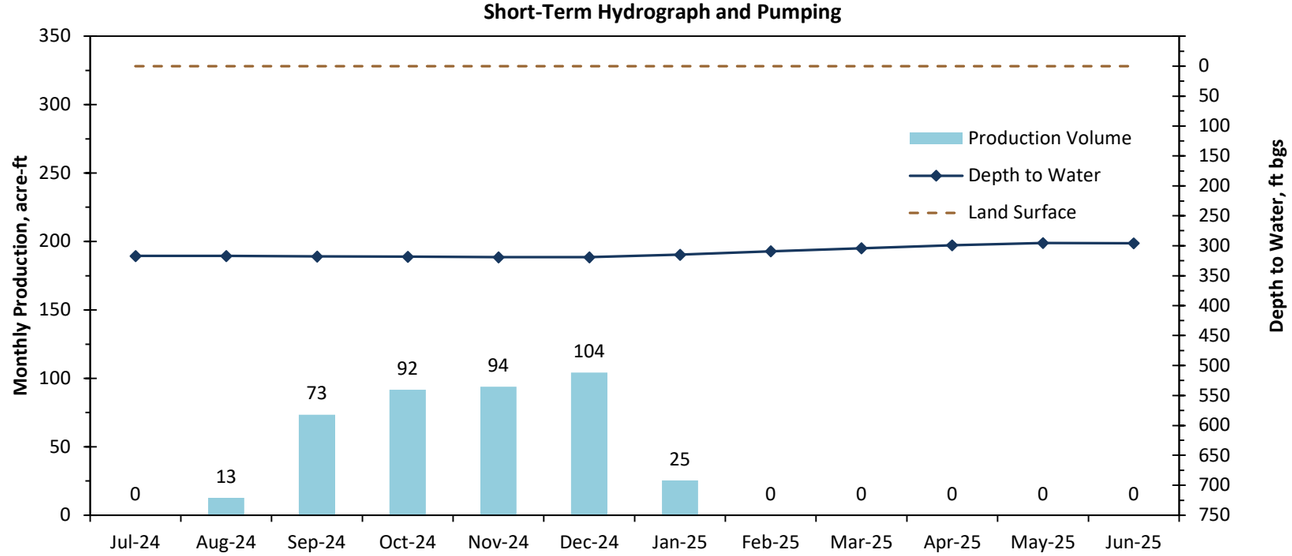
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 235

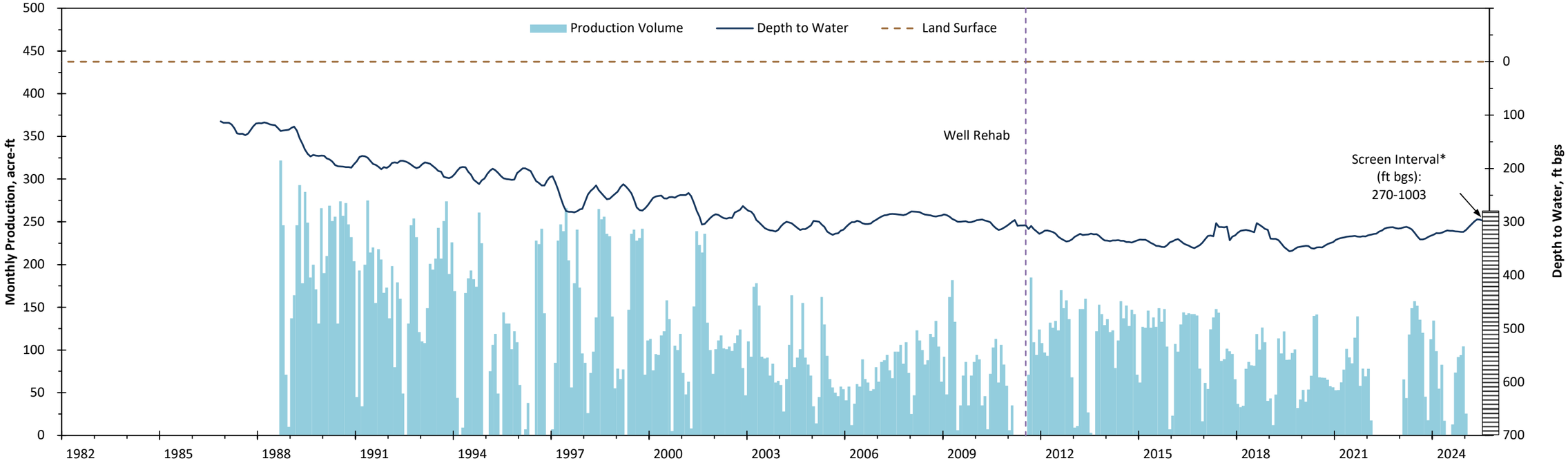
Well Performance and Recommended Production

Hydrolgic Subarea	19
Hydrolgic Subunit	Lower Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	1,200
Static Submergence [ft]	657
Comments	Constituent: Arsenic Over MCL?: Y Exceeded the MCL on two different occasions. Averaging around 2/3 the MCL, New column pipe installed and currently at 750 gpm. Arsenic concentration exceeded the MCL. Rehabbed in 2011.
Recommended Production [acre-ft] Jul-2025 to Jun-2026	700
Actual Production [acre-ft] Jul-2024 to Jun-2025	401
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**350**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping

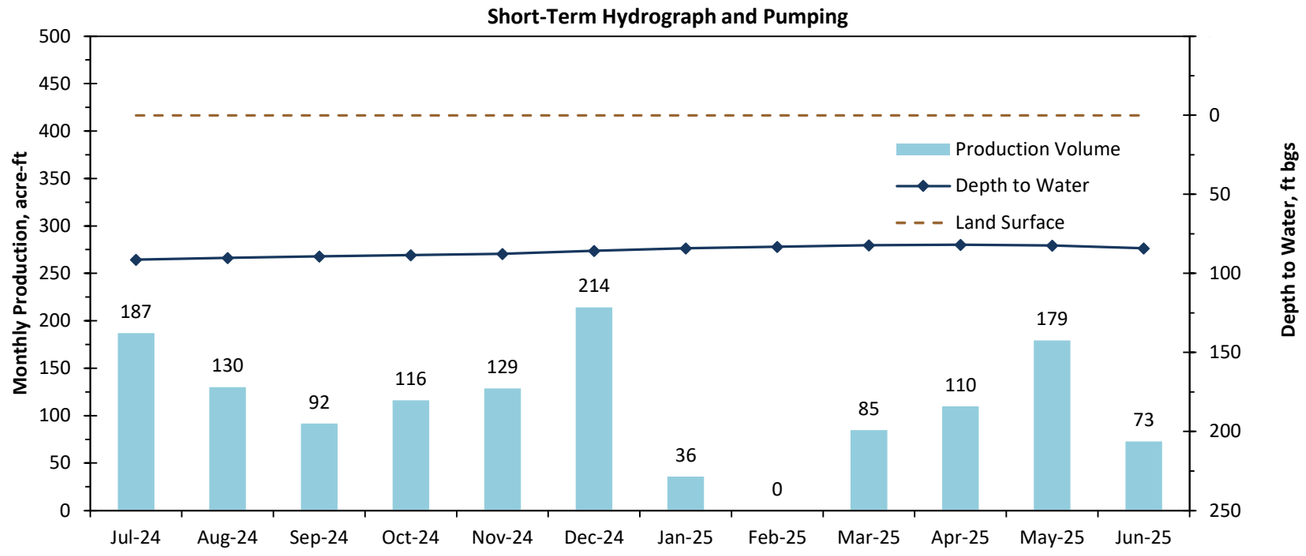


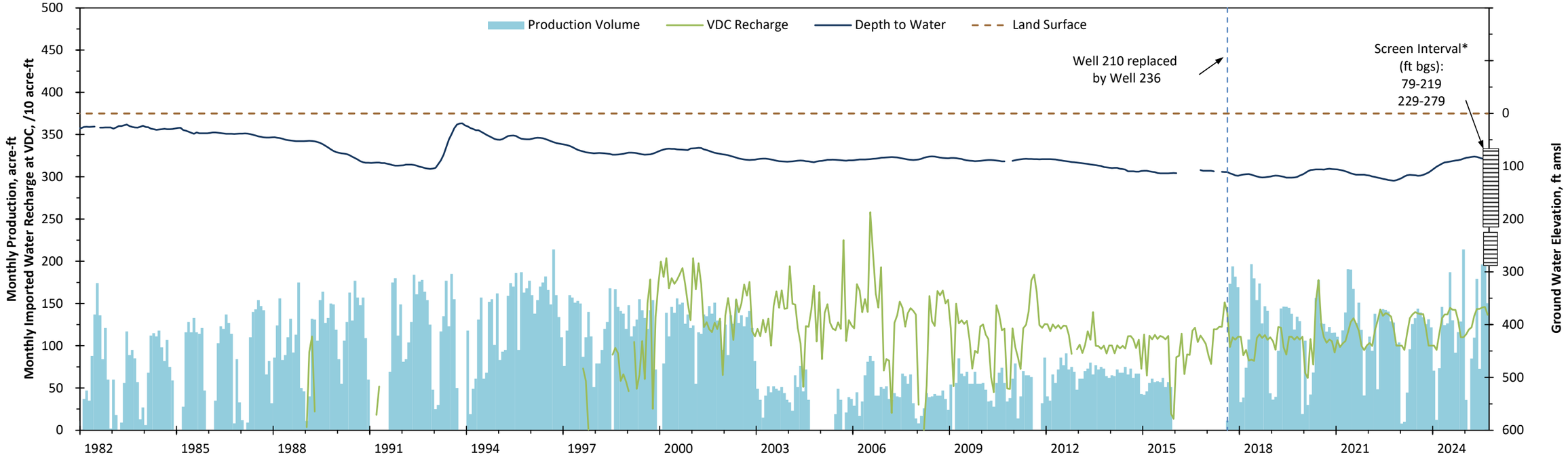
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 236 (old 210)

Well Performance and Recommended Production

Hydrolgic Subarea	12
Hydrolgic Subunit	Pauba Valley
Aquifer	Pauba
Instantaneous Yield [gpm]	1,720
Static Submergence [ft]	-
Comments	Replaced Well No. 210, figure shows water level and production from both old well and new well; On-line mid-2018. Target water level is around 1,140 ft amsl (close to 2010 level)
Recommended Production [acre-ft] Jul-2025 to Jun-2026	1,500
Actual Production [acre-ft] Jul-2024 to Jun-2025	1,350
Percent of Total Production from Qyal	37%
Production from Qyal [acre-ft]	500
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**1,700**



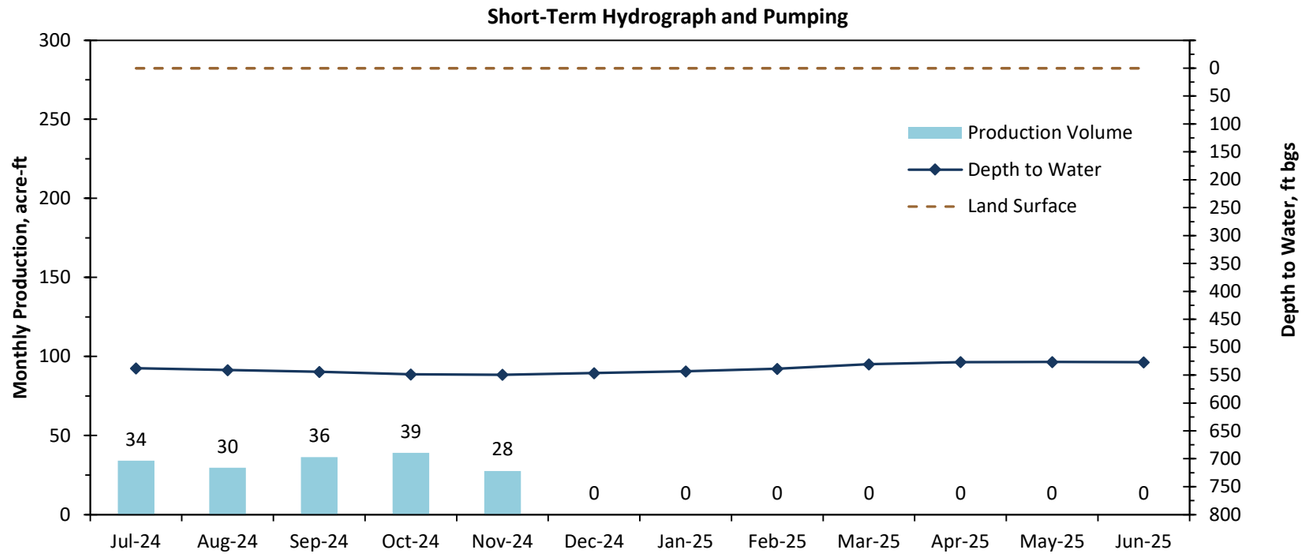


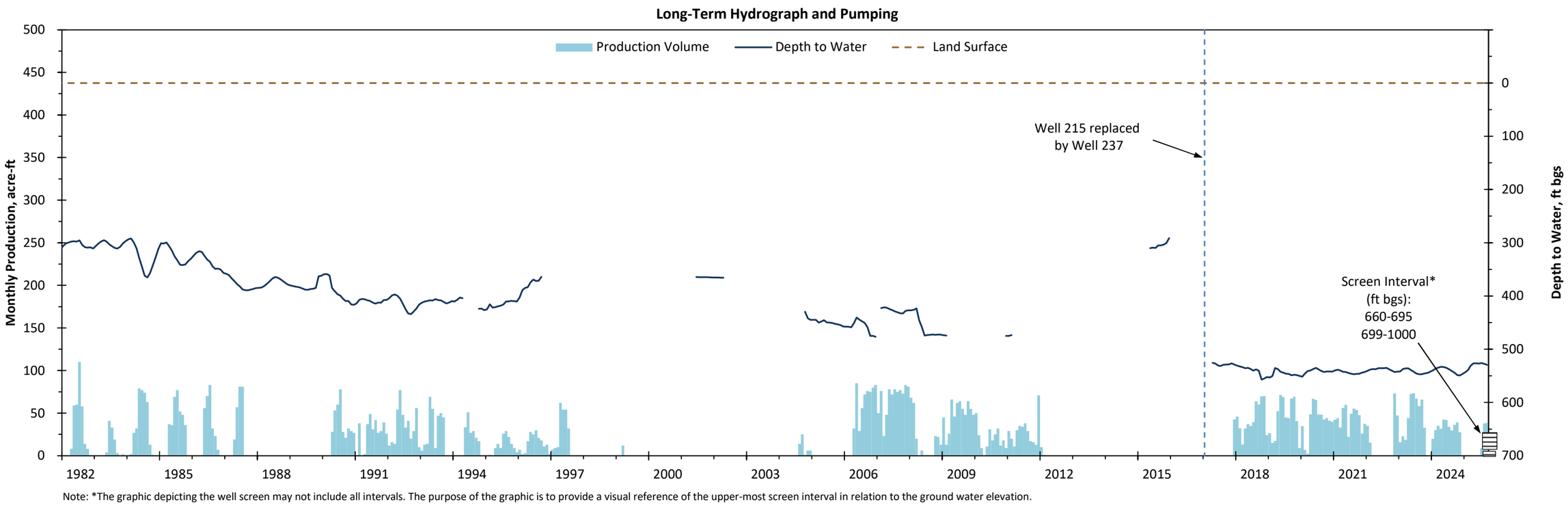
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 237 (old 215)

Well Performance and Recommended Production

Hydrolgic Subarea	16
Hydrolgic Subunit	Upper Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	560
Static Submergence [ft]	-
Comments	Constituent: Arsenic Over MCL?: N Recent results were 5.6 - 8.4, Replaced Well No. 215, figure shows water level and production from both old well and new well; On-line mid-2018
Recommended Production [acre-ft] Jul-2025 to Jun-2026	425
Actual Production [acre-ft] Jul-2024 to Jun-2025	167
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**300**





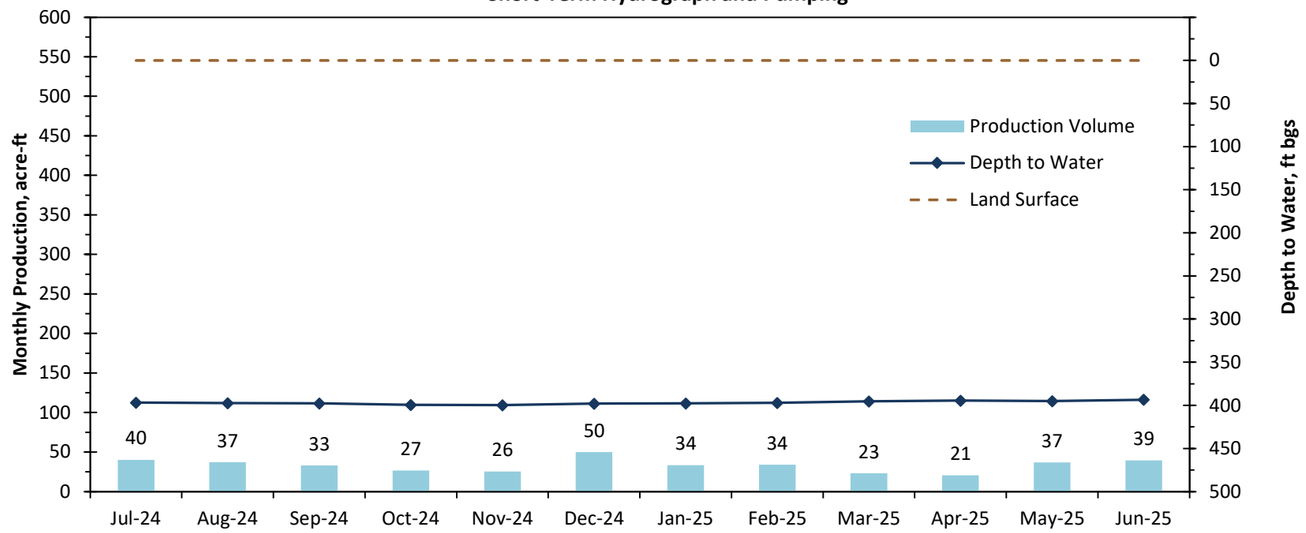
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 238 (old 216)

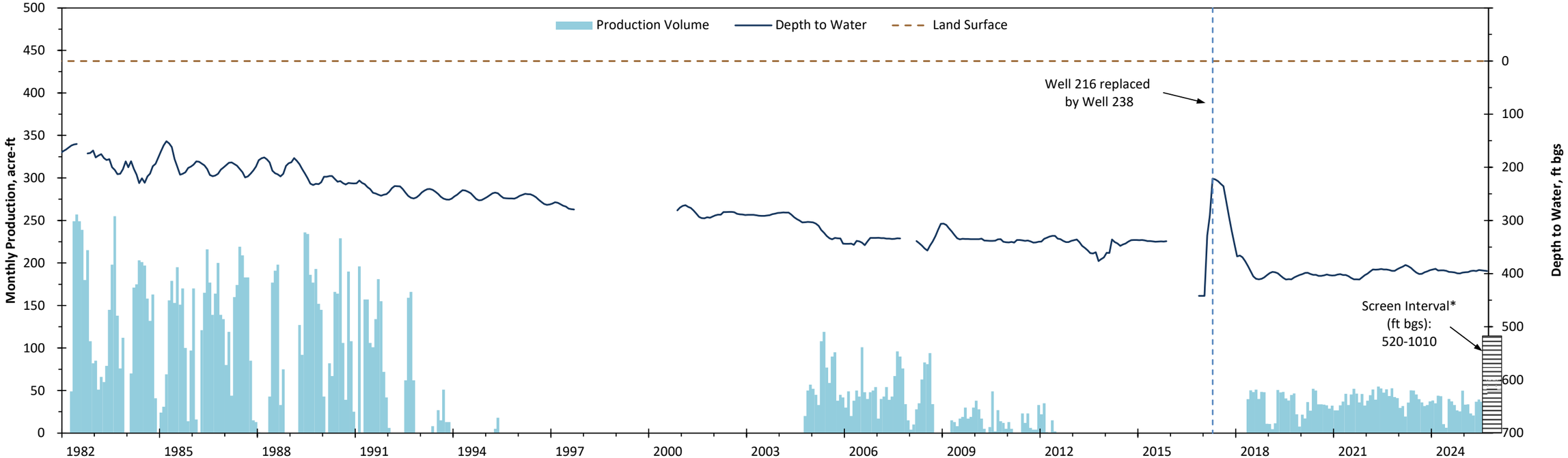
Well Performance and Recommended Production

Hydrolgic Subarea	9
Hydrolgic Subunit	Lower Mesa
Aquifer	Temecula
Instantaneous Yield [gpm]	410
Static Submergence [ft]	-
Comments	Replaced Well No. 216, figure shows water level and production from both old well and new well; On-line mid-2018
Recommended Production [acre-ft] Jul-2025 to Jun-2026	375
Actual Production [acre-ft] Jul-2024 to Jun-2025	400
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**400**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping



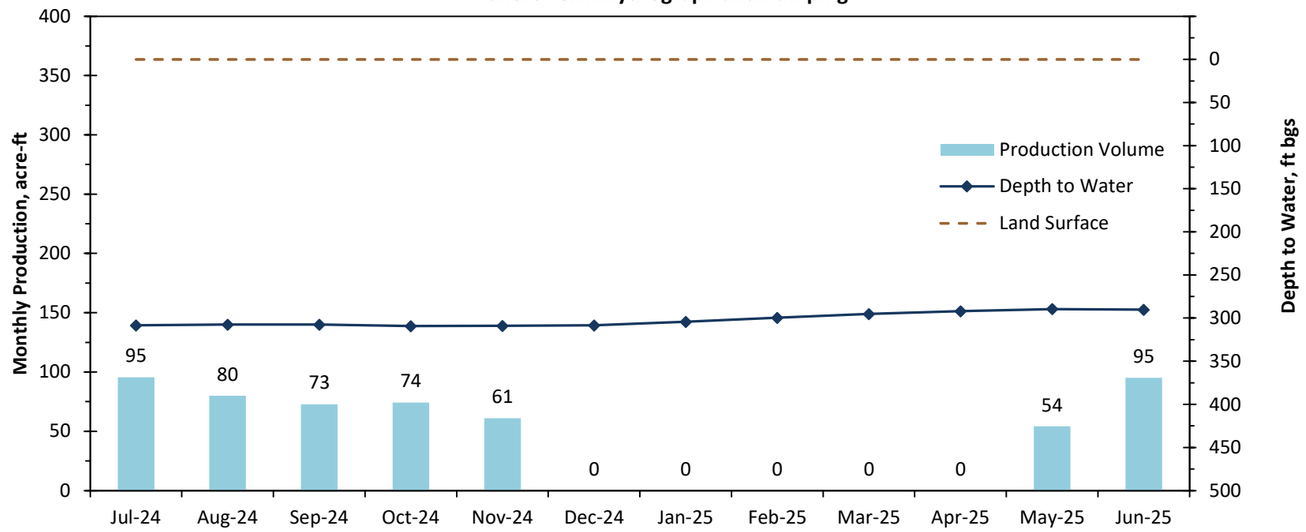
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 240 (old 205)

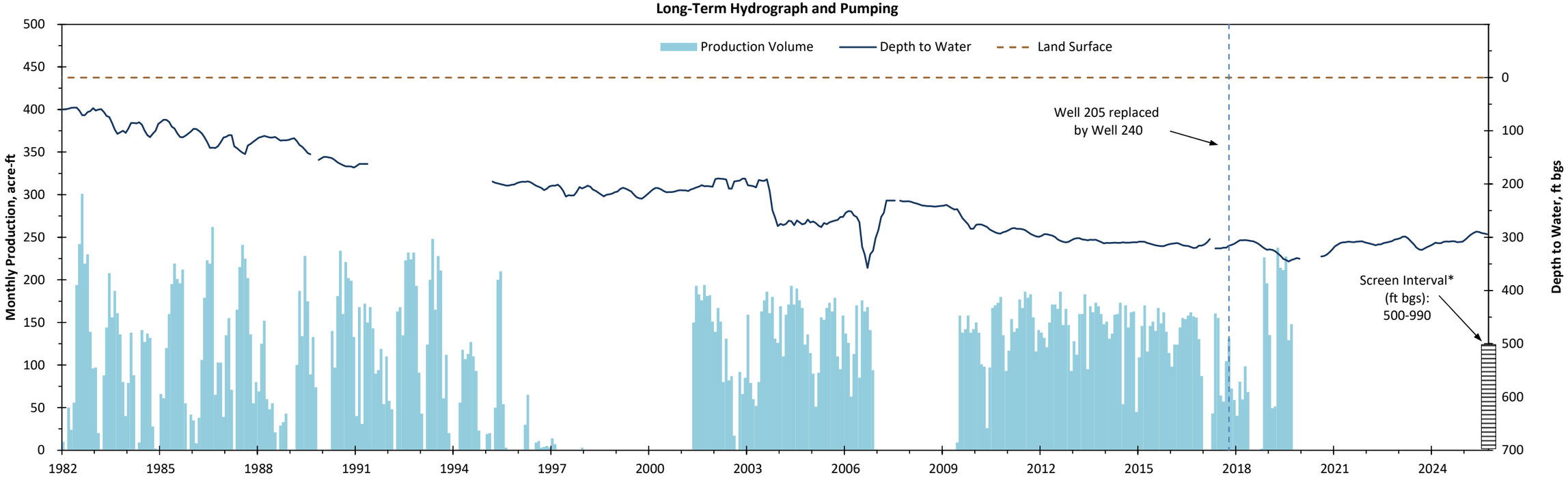
Well Performance and Recommended Production

Hydrolgic Subarea	20
Hydrolgic Subunit	Santa Gertrudis
Aquifer	Temecula
Instantaneous Yield [gpm]	1,000
Static Submergence [ft]	-
Comments	Constituent: Arsenic Over MCL?: N 3.9 ug/L - 8.7 ug/L, Replaced Well No. 205, figure shows water level and production from both old well and new well; On-line 2018-19
Recommended Production [acre-ft] Jul-2025 to Jun-2026	800
Actual Production [acre-ft] Jul-2024 to Jun-2025	533
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**800**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping



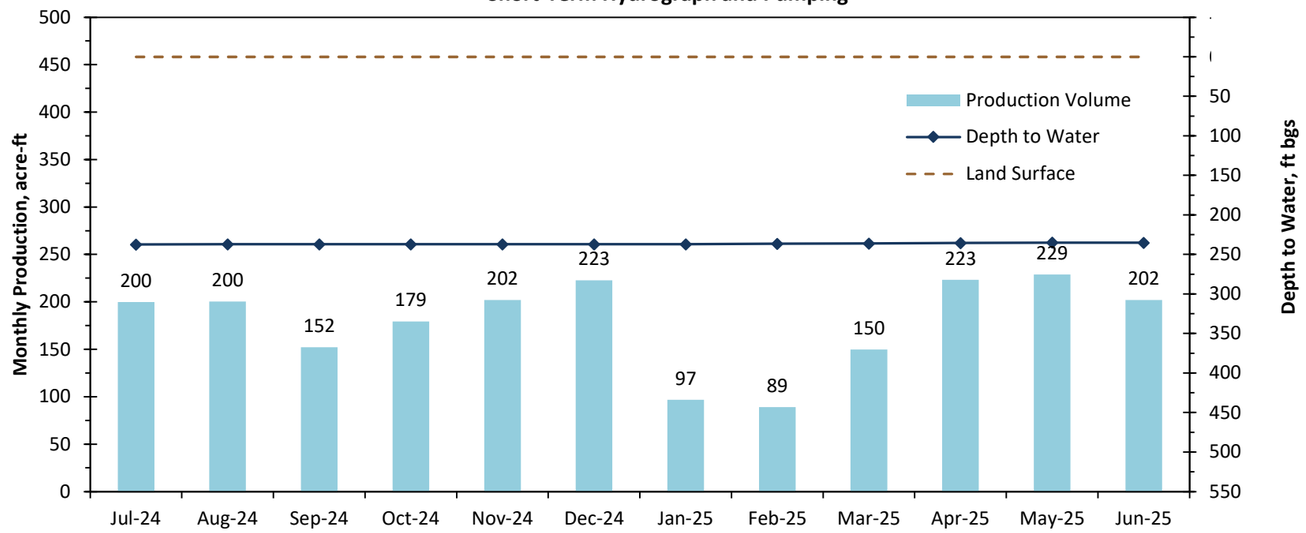
Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

TREND ANALYSIS FOR CHANGING GROUNDWATER LEVELS AND PRODUCTION - RCWD WELL NO. 309

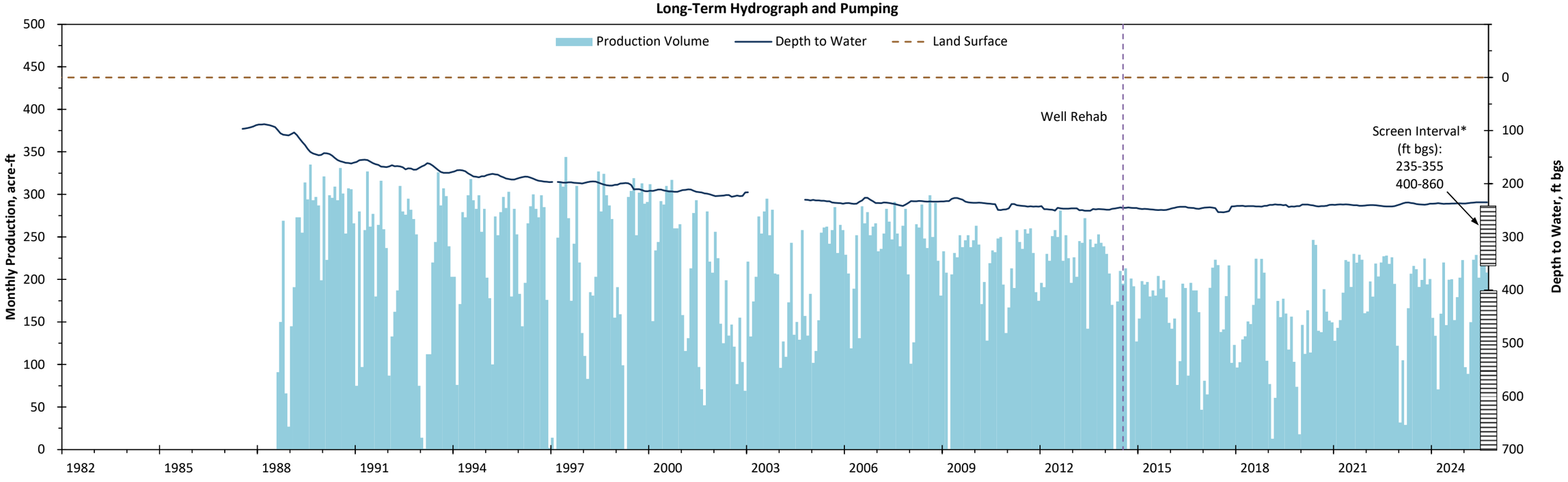
Well Performance and Recommended Production

Hydrolgic Subarea	20
Hydrolgic Subunit	Santa Gertrudis
Aquifer	Temecula
Instantaneous Yield [gpm]	1,710
Static Submergence [ft]	651
Comments	Rehabbed in 2014
Recommended Production [acre-ft] Jul-2025 to Jun-2026	2,100
Actual Production [acre-ft] Jul-2024 to Jun-2025	2,146
Percent of Total Production from Qyal	0%
Production from Qyal [acre-ft]	0
Recommended Production [acre-ft] Jul-2026 to Jun-2027	**2,150**

Short-Term Hydrograph and Pumping



Long-Term Hydrograph and Pumping



Note: *The graphic depicting the well screen may not include all intervals. The purpose of the graphic is to provide a visual reference of the upper-most screen interval in relation to the ground water elevation.

APPENDIX B

Long-Term Hydrographs for Index Wells

January 1981 to September 2025

GEOSCIENCE

APPENDIX B

Long-term Hydrographs for Index Wells

January 1981 to September 2025

CONTENTS

Pauba Aquifer Index Wells

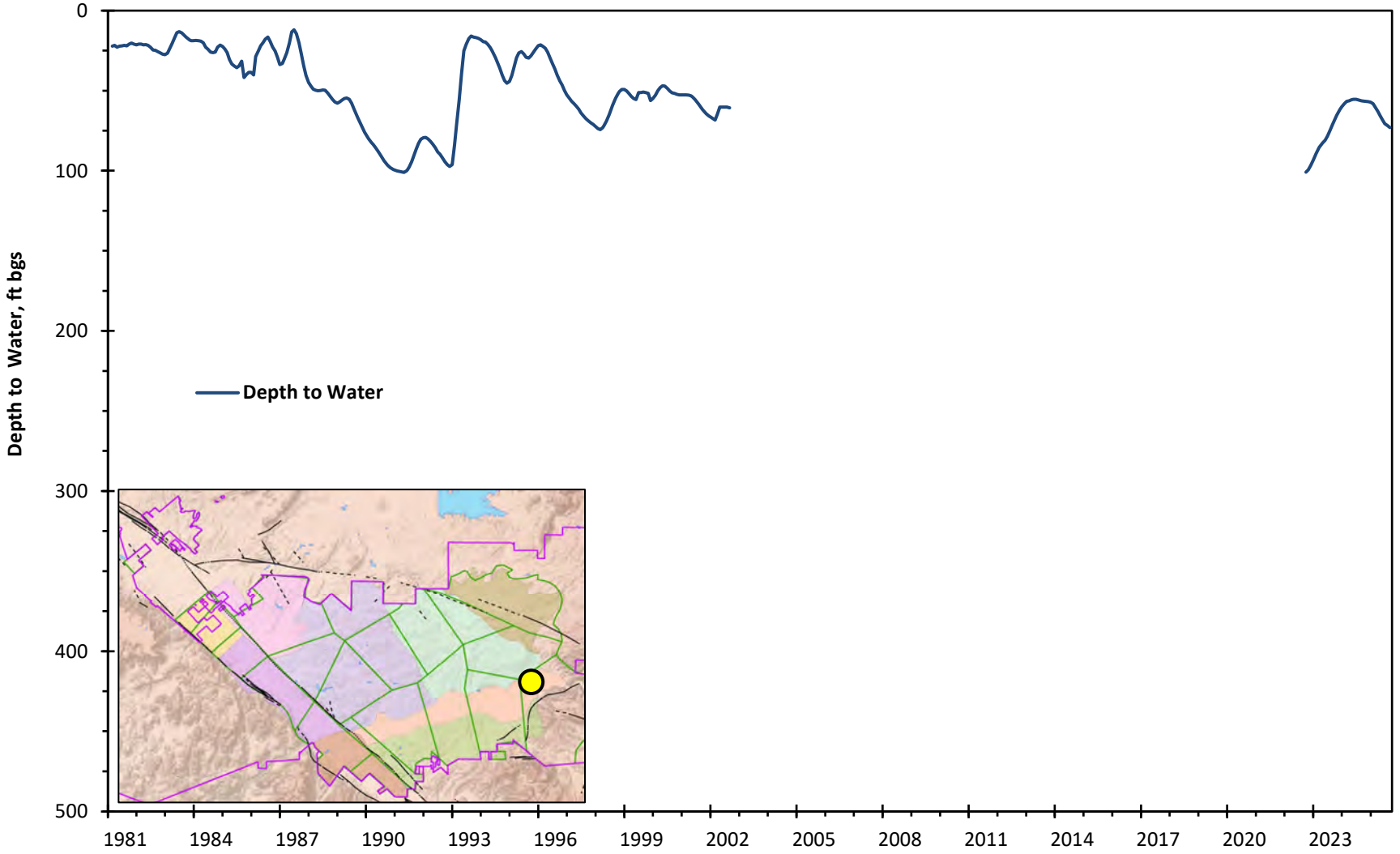
RCWD Well No. 414 ..... B-1
RCWD Well No. 417 ..... B-2
RCWD Well No. 422 ..... B-3
RCWD Well No. 426 ..... B-4
RCWD Well No. 492 ..... B-5
RCWD Well No. 499 ..... B-6

Temecula Aquifer Index Wells

RCWD Well No. 410 ..... B-7
RCWD Well No. 439 ..... B-8
RCWD Well No. 454 ..... B-9
RCWD Well No. 462 ..... B-10
RCWD Well No. 463 ..... B-11
RCWD Well No. 464 ..... B-12
RCWD Well No. 465 ..... B-13
RCWD Well No. 466 ..... B-14
RCWD Well No. 468 ..... B-15
RCWD Well No. 473 ..... B-16
RCWD Well No. 493 ..... B-17
RCWD Well No. 495 ..... B-18

DRAFT

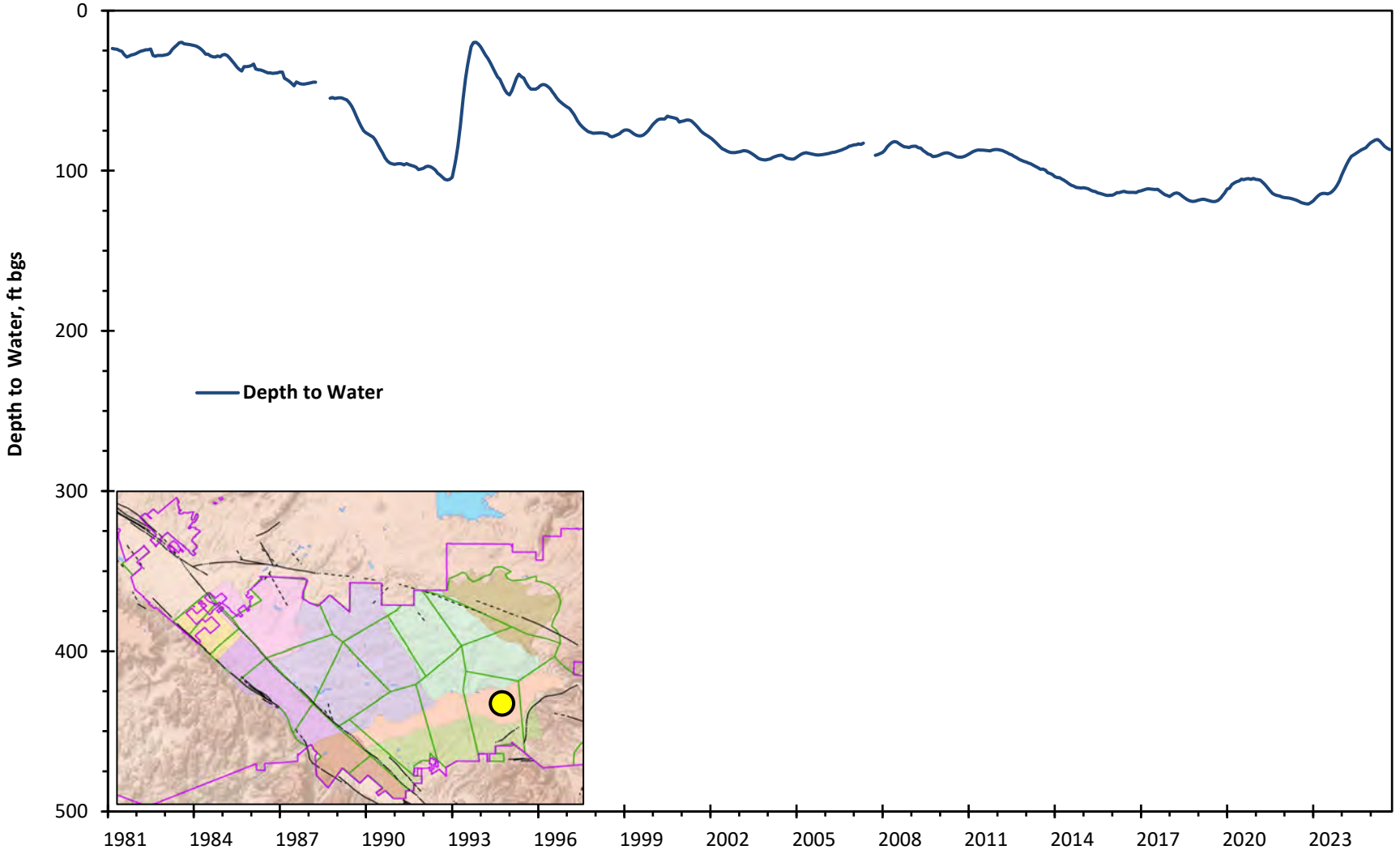
Long-Term Hydrograph - RCWD Well No. 414
Pauba Aquifer Index Well



Appendix B

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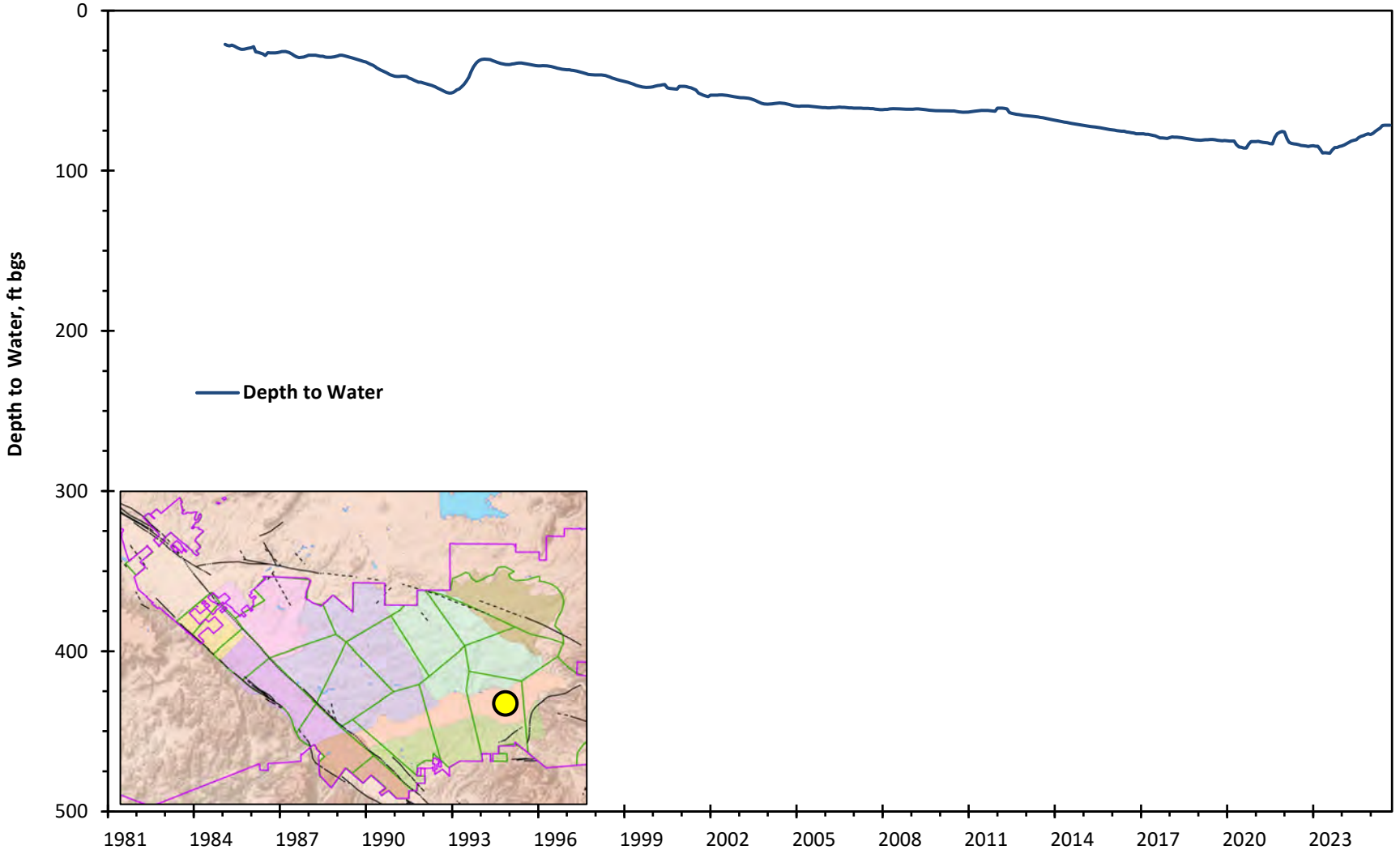
Long-Term Hydrograph - RCWD Well No. 417
Pauba Aquifer Index Well



Appendix B

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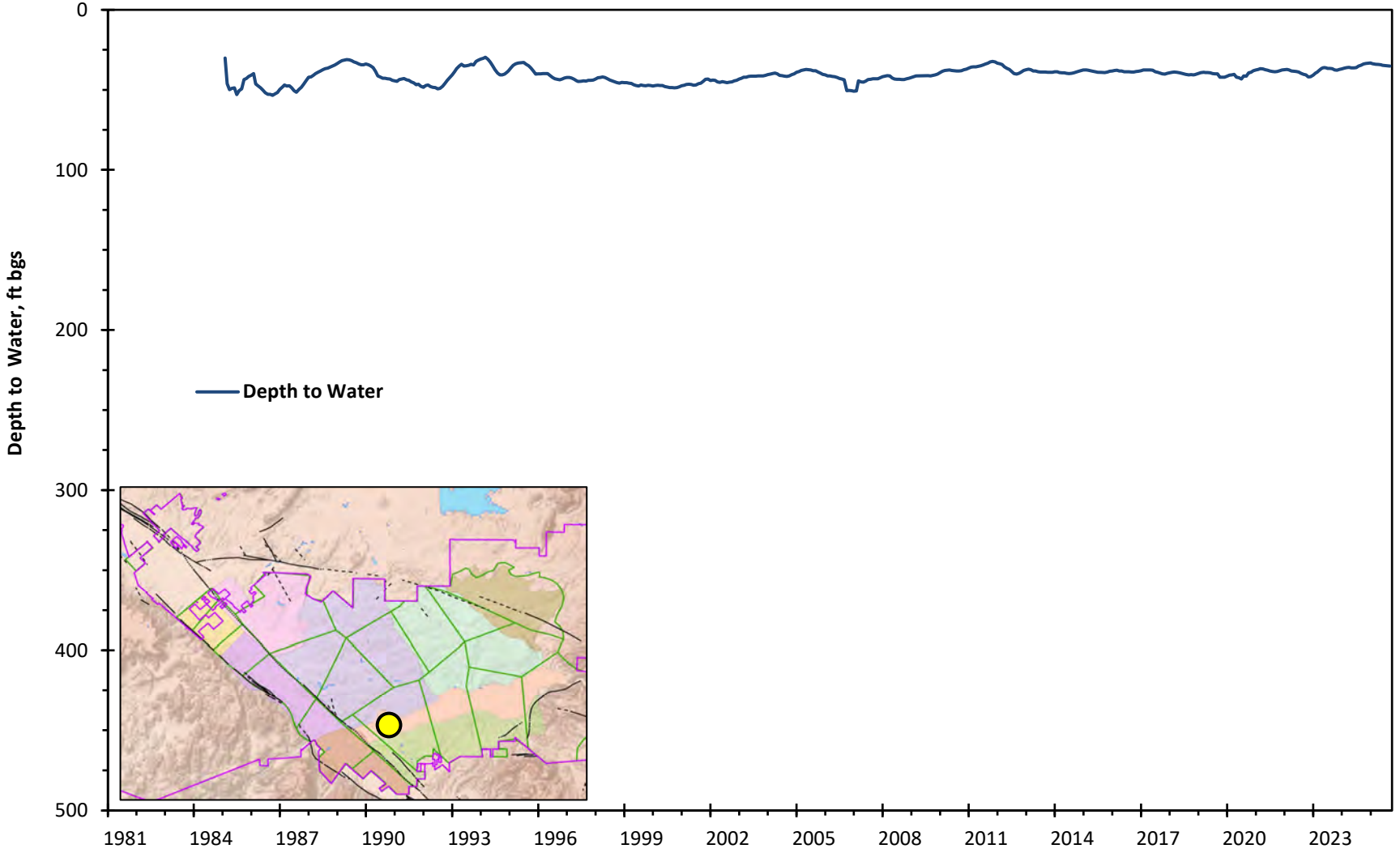
Long-Term Hydrograph - RCWD Well No. 422
Pauba Aquifer Index Well



Appendix B

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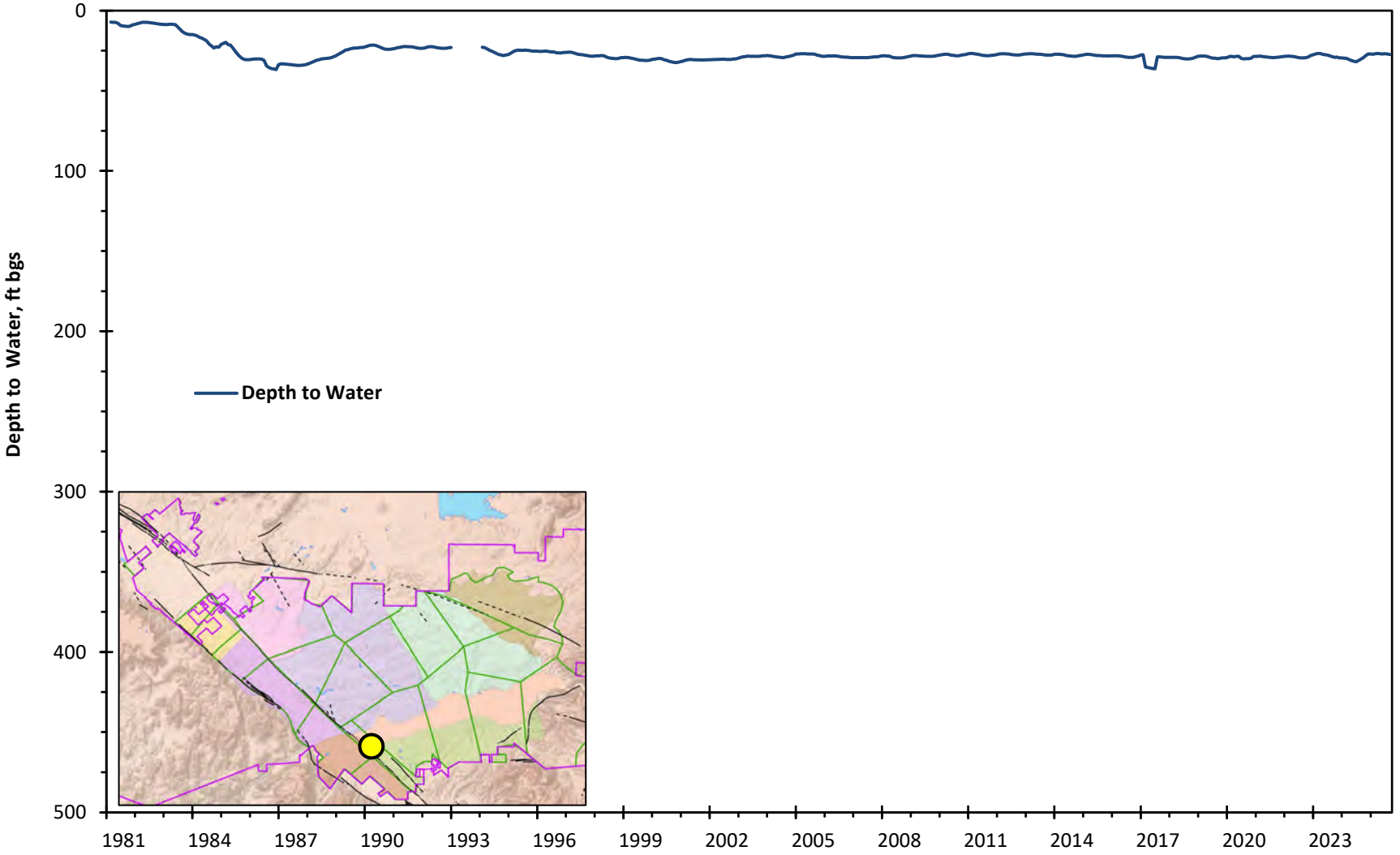
Long-Term Hydrograph - RCWD Well No. 426
Pauba Aquifer Index Well



Appendix B

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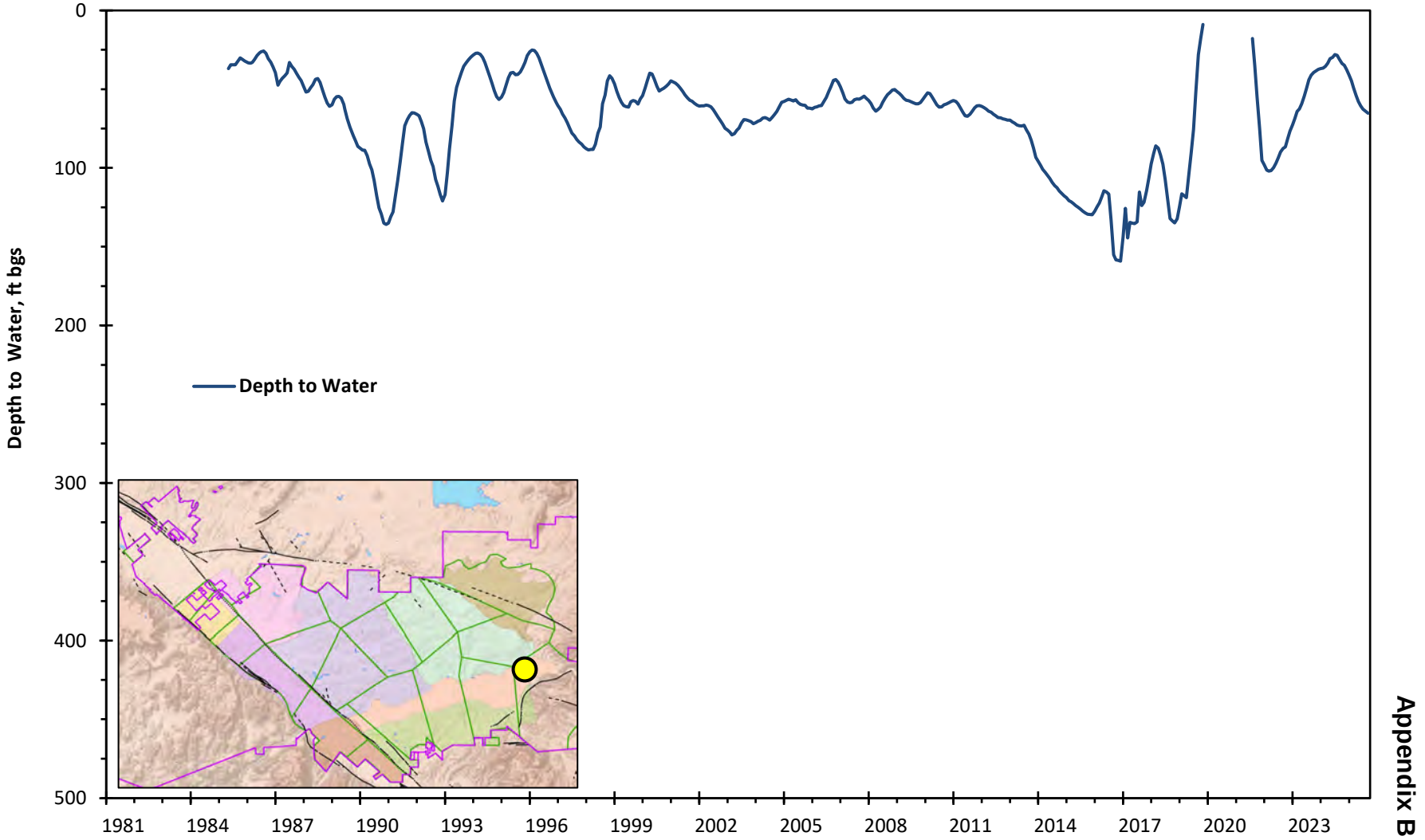
Long-Term Hydrograph - RCWD Well No. 492
Pauba Aquifer Index Well



Appendix B

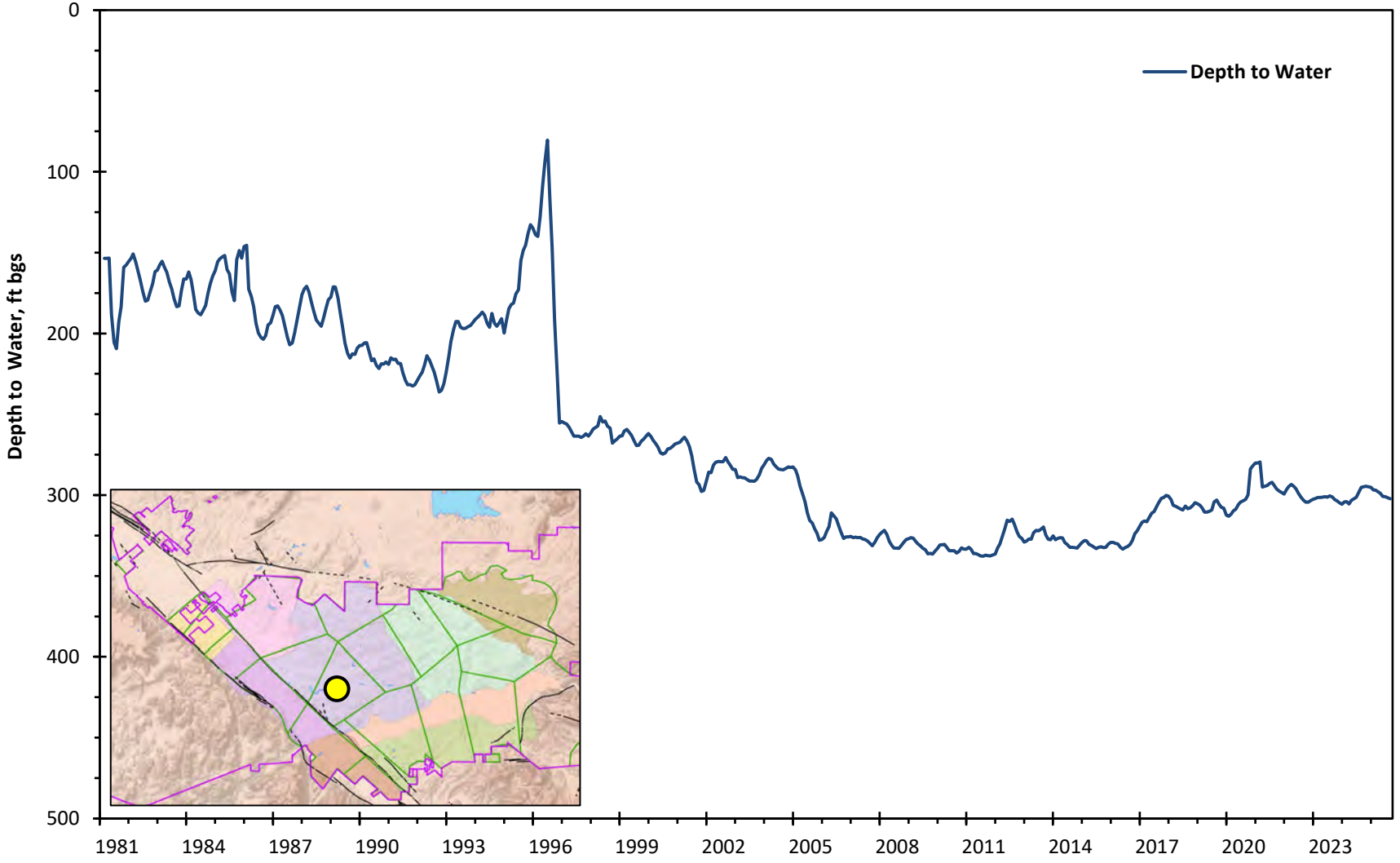
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Long-Term Hydrograph - RCWD Well No. 499
Pauba Aquifer Index Well



Appendix B

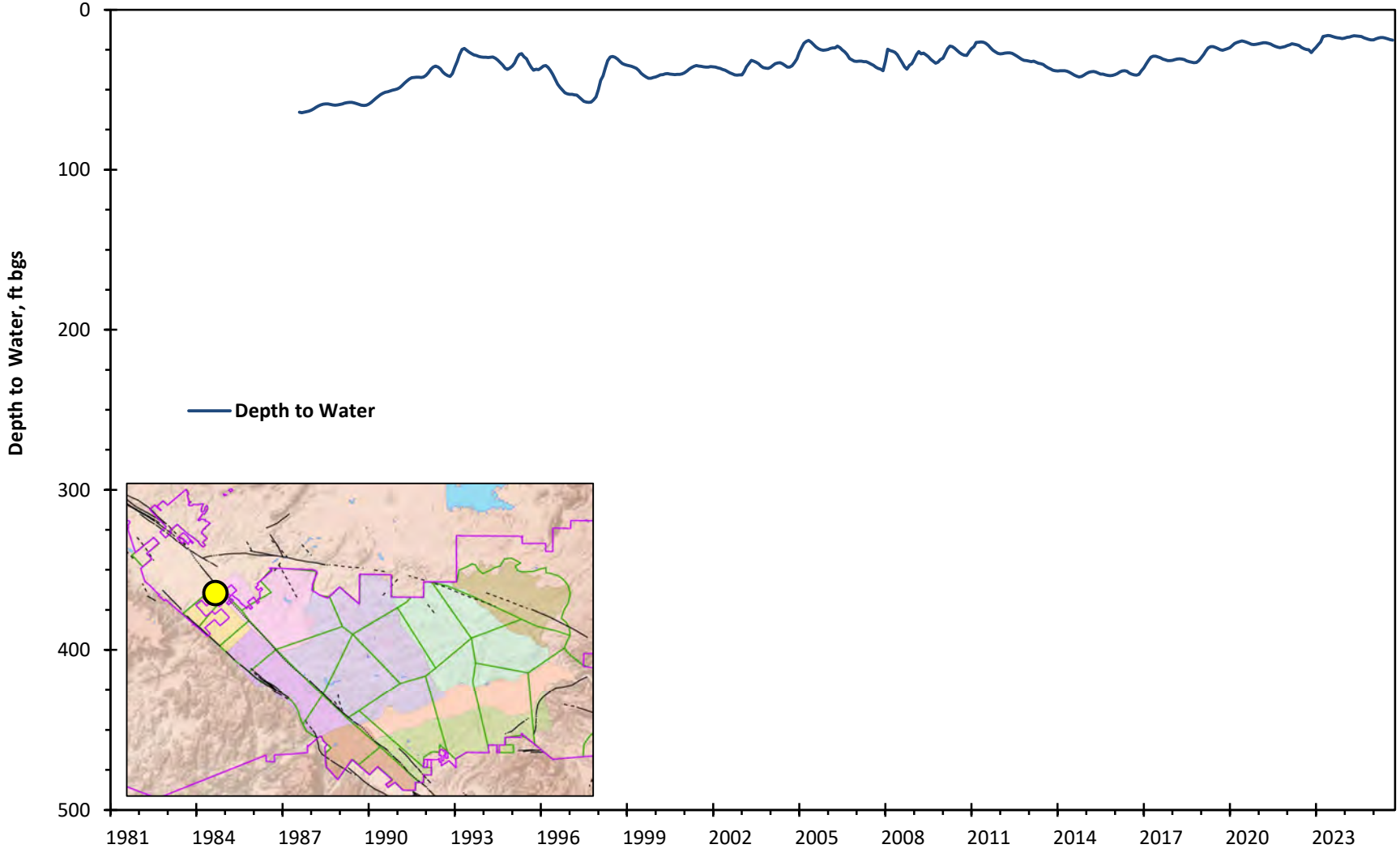
Long-Term Hydrograph - RCWD Well No. 410
Temecula Aquifer Index Well



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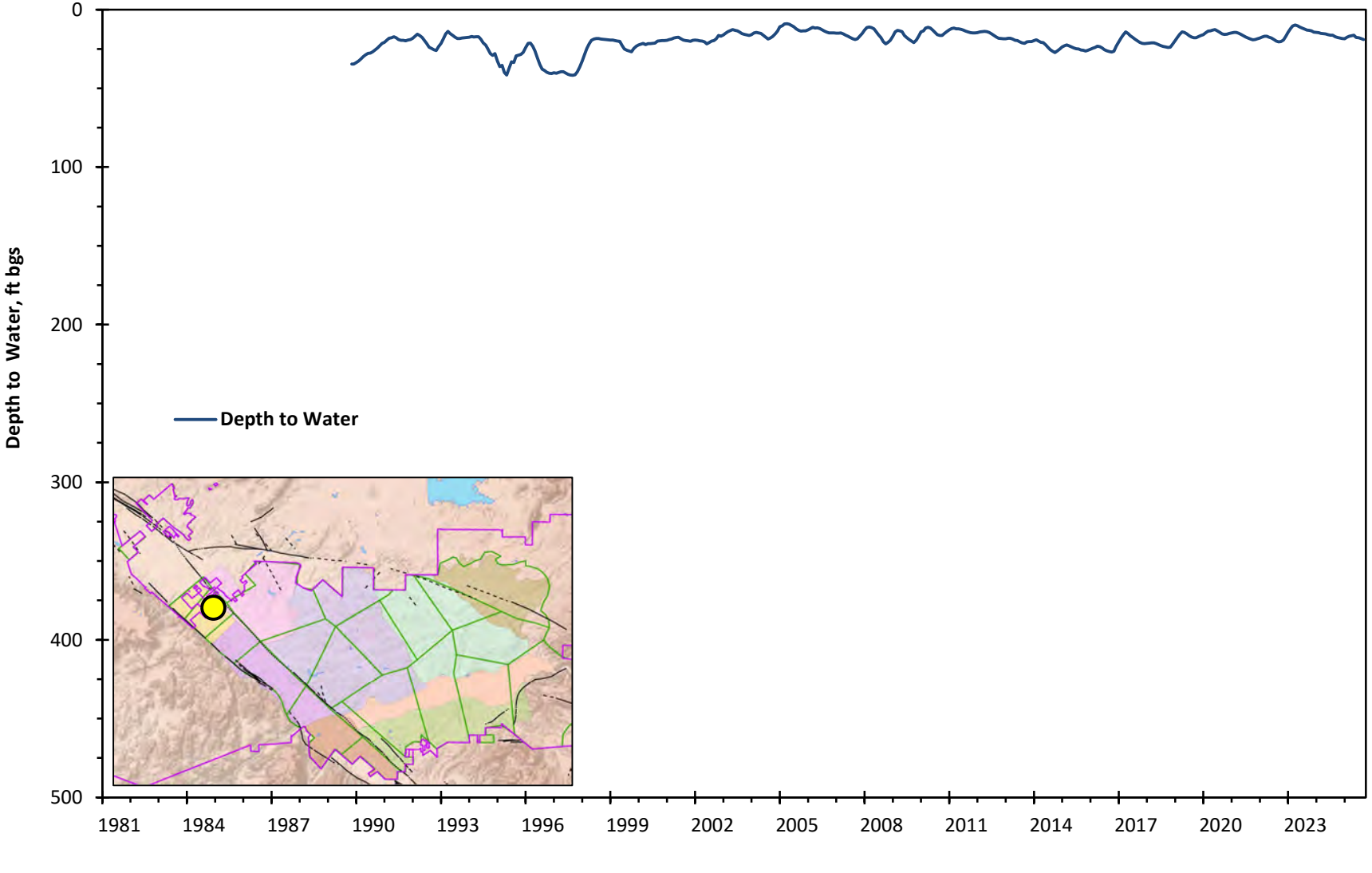
Long-Term Hydrograph - RCWD Well No. 439
Temecula Aquifer Index Well



Appendix B

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Long-Term Hydrograph - RCWD Well No. 454
Temecula Aquifer Index Well



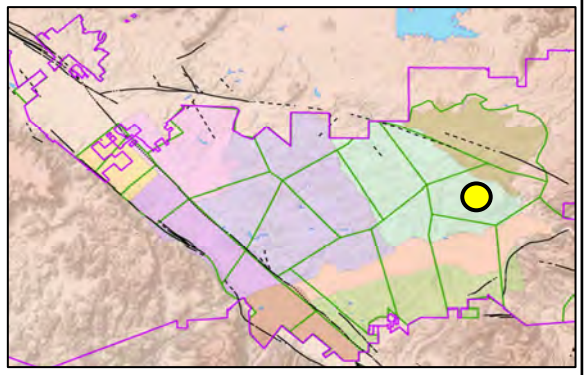
Appendix B

Geoscience Support Services, Inc.

Jan-26

DRAFT

Long-Term Hydrograph - RCWD Well No. 462
Temecula Aquifer Index Well

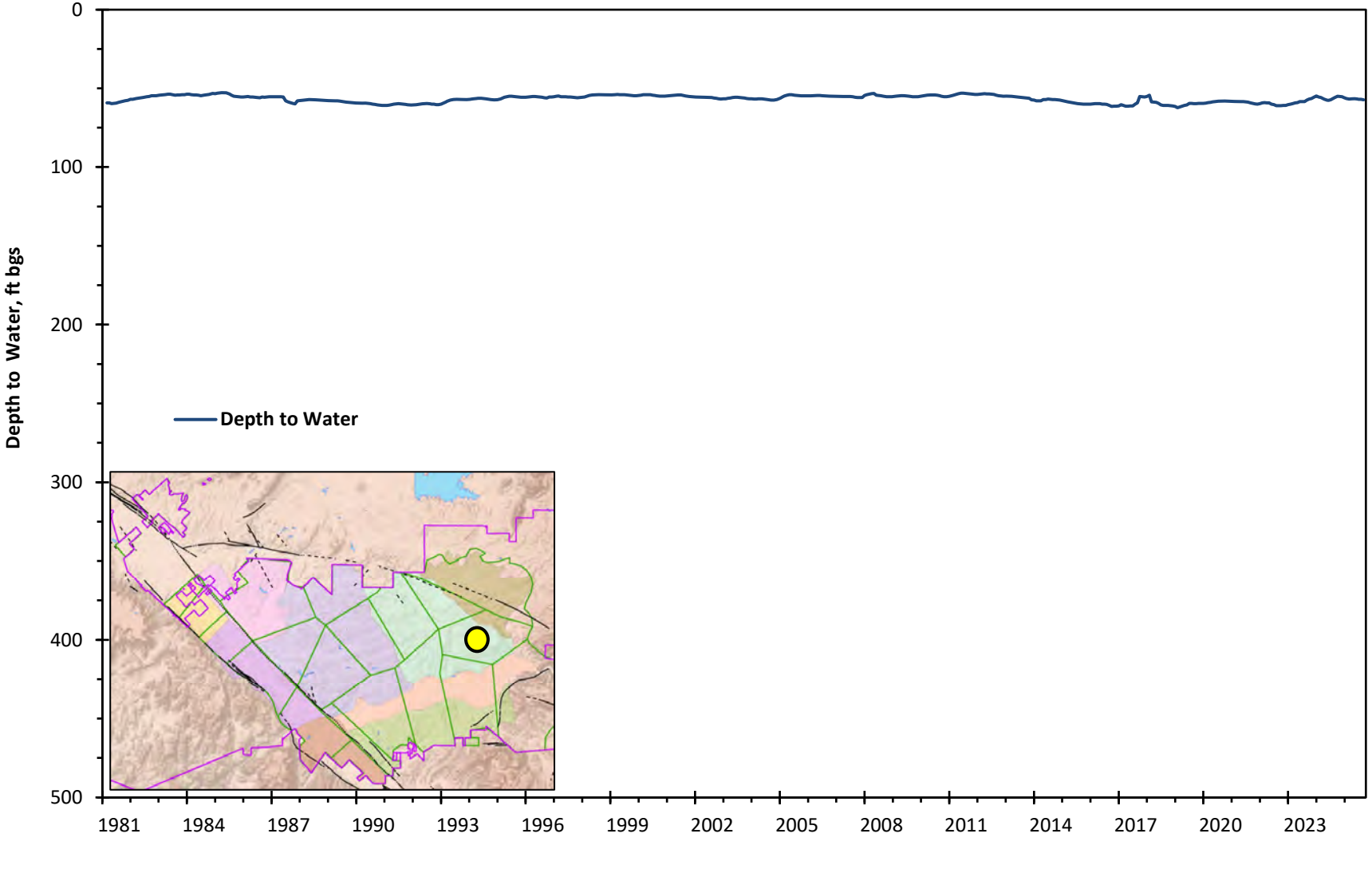


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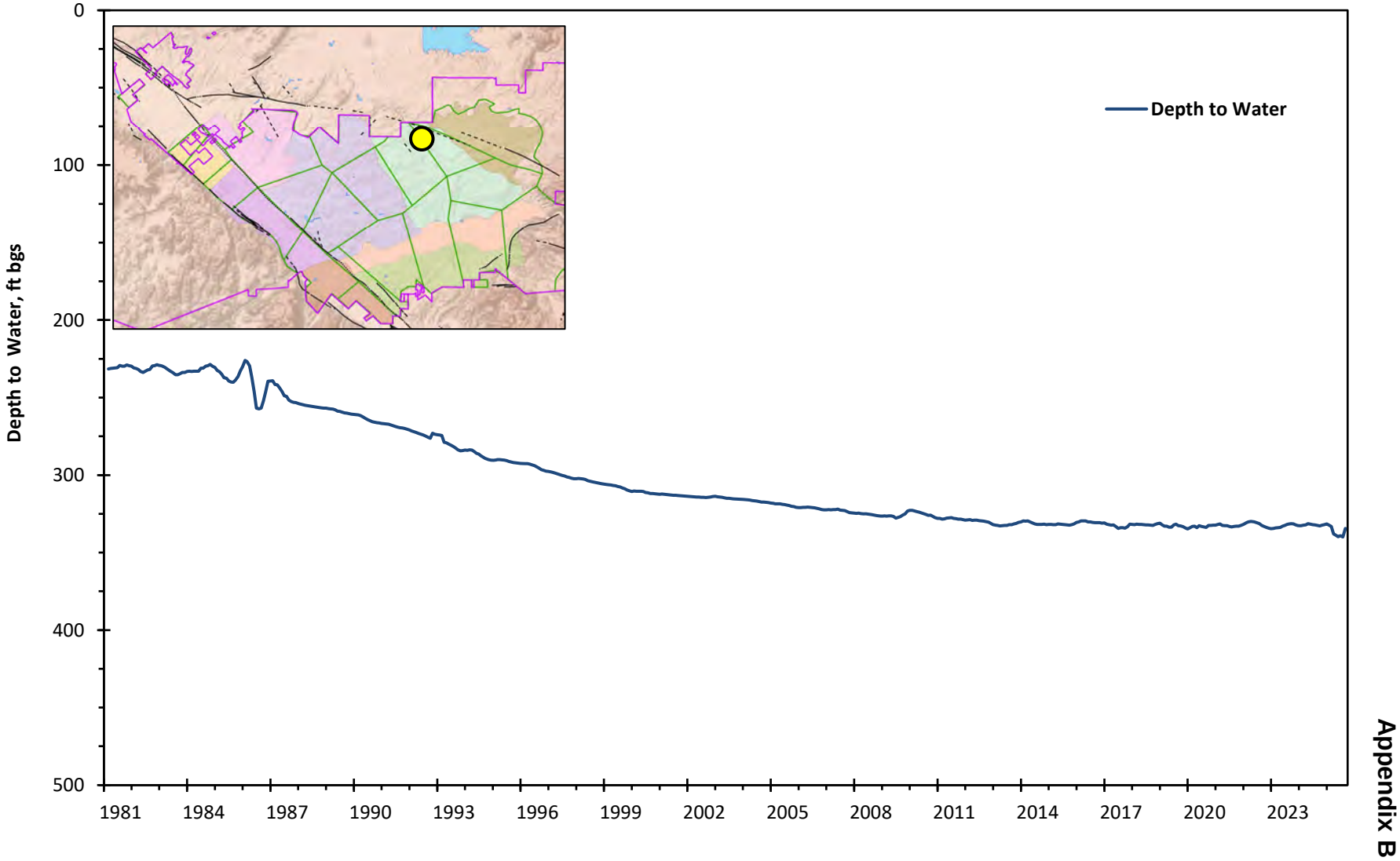
Geoscience Support Services, Inc.

Jan-26

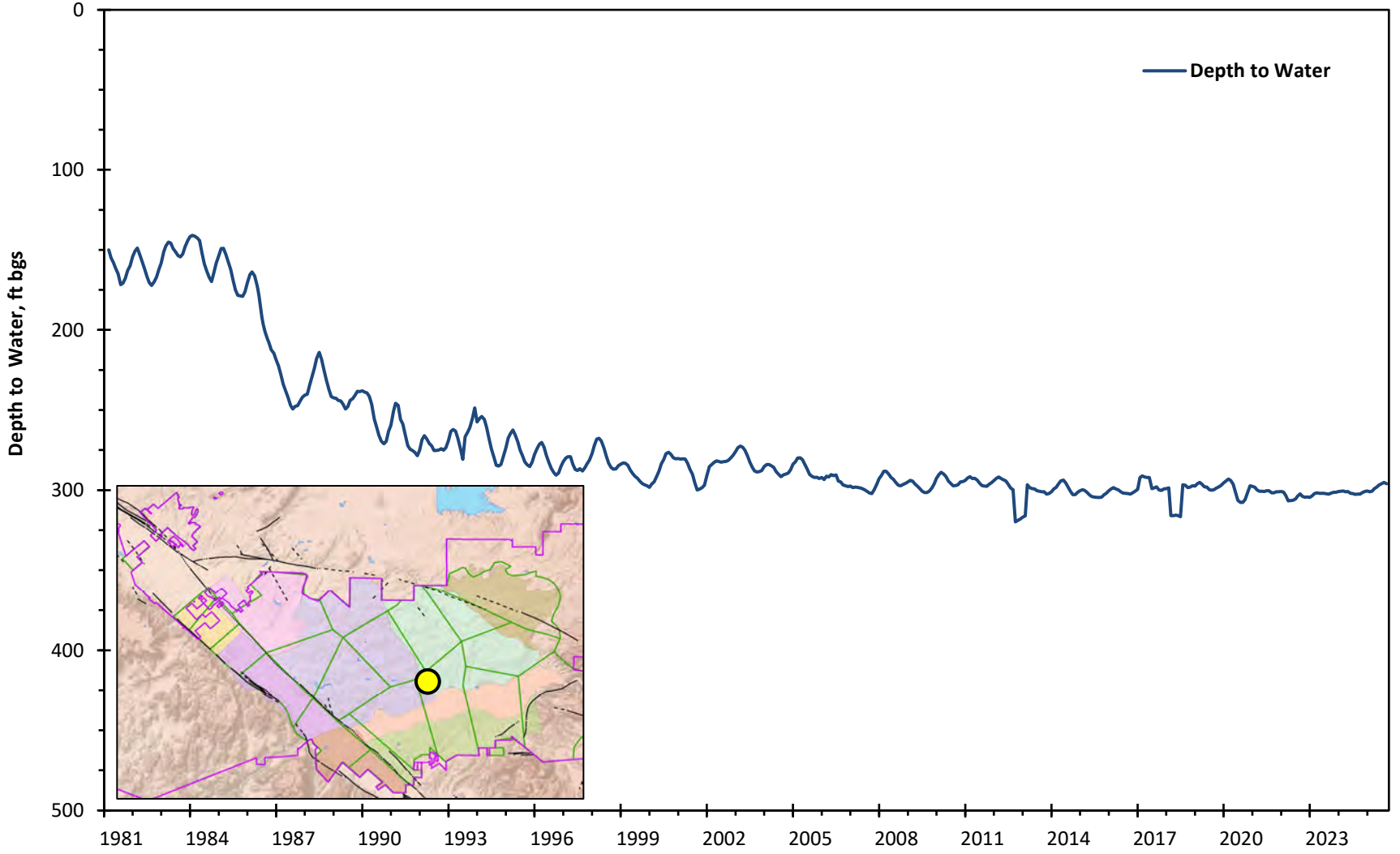
Long-Term Hydrograph - RCWD Well No. 463
Temecula Aquifer Index Well



Long-Term Hydrograph - RCWD Well No. 464
Temecula Aquifer Index Well

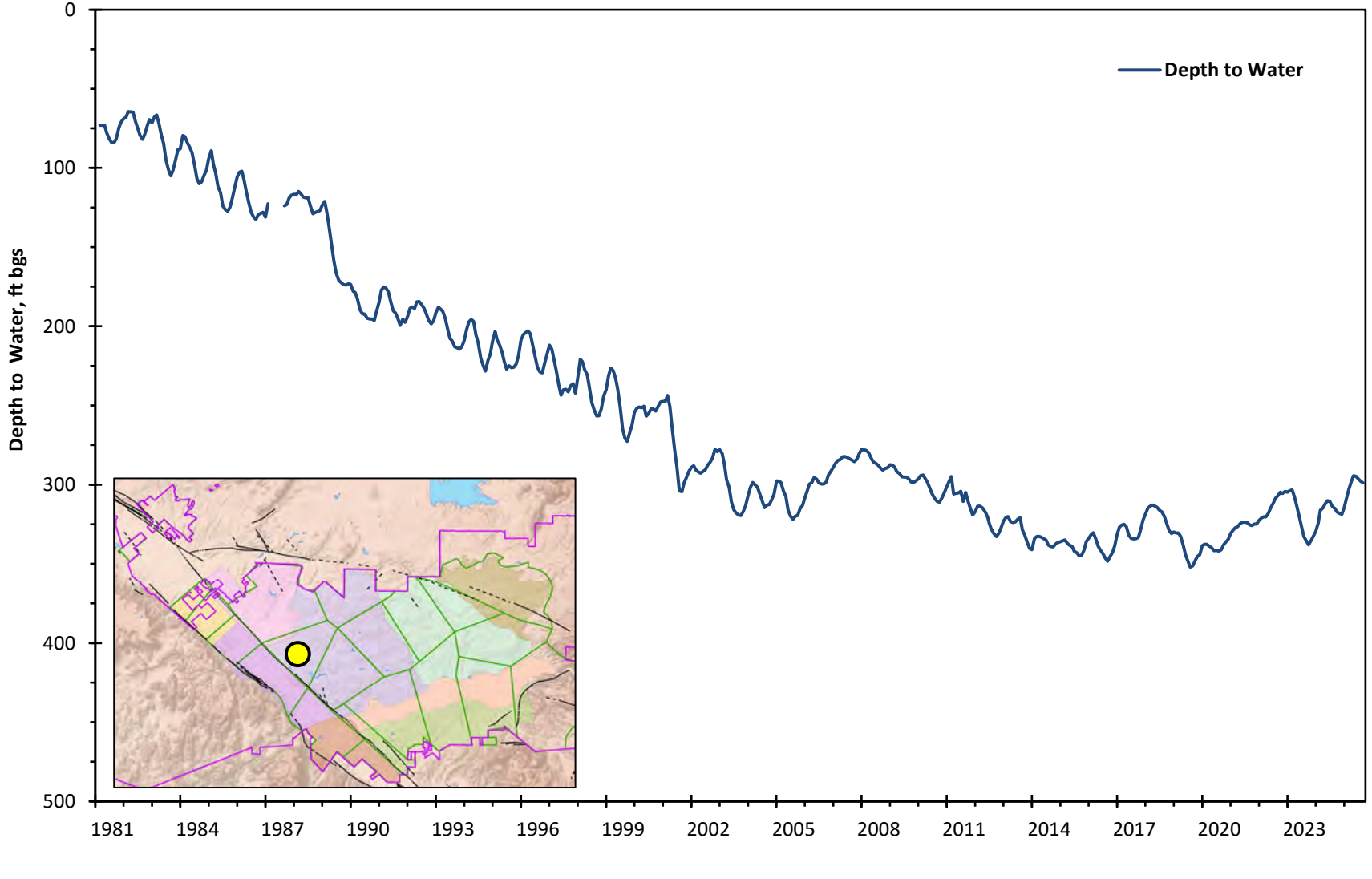


Long-Term Hydrograph - RCWD Well No. 465
Temecula Aquifer Index Well

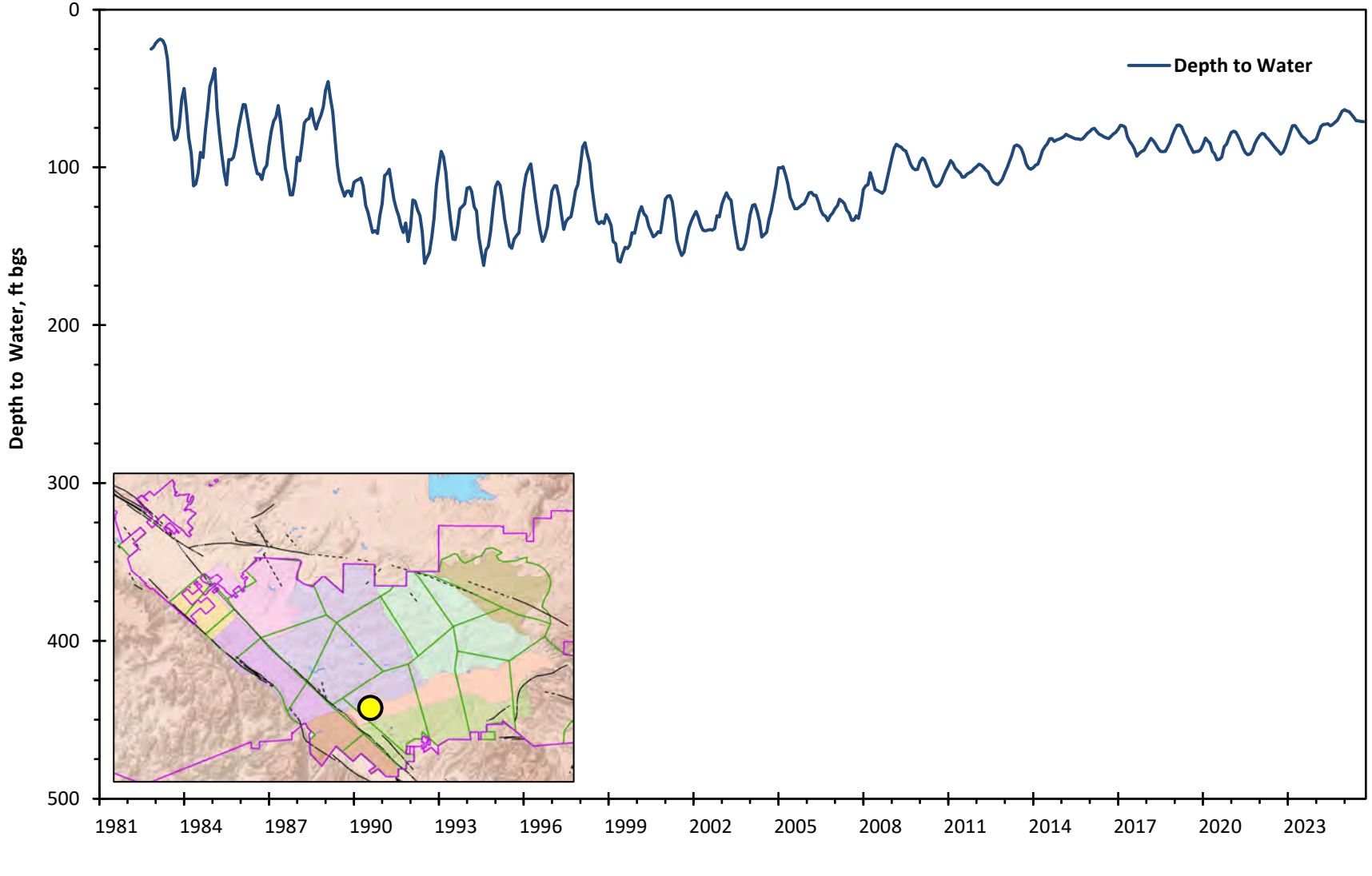


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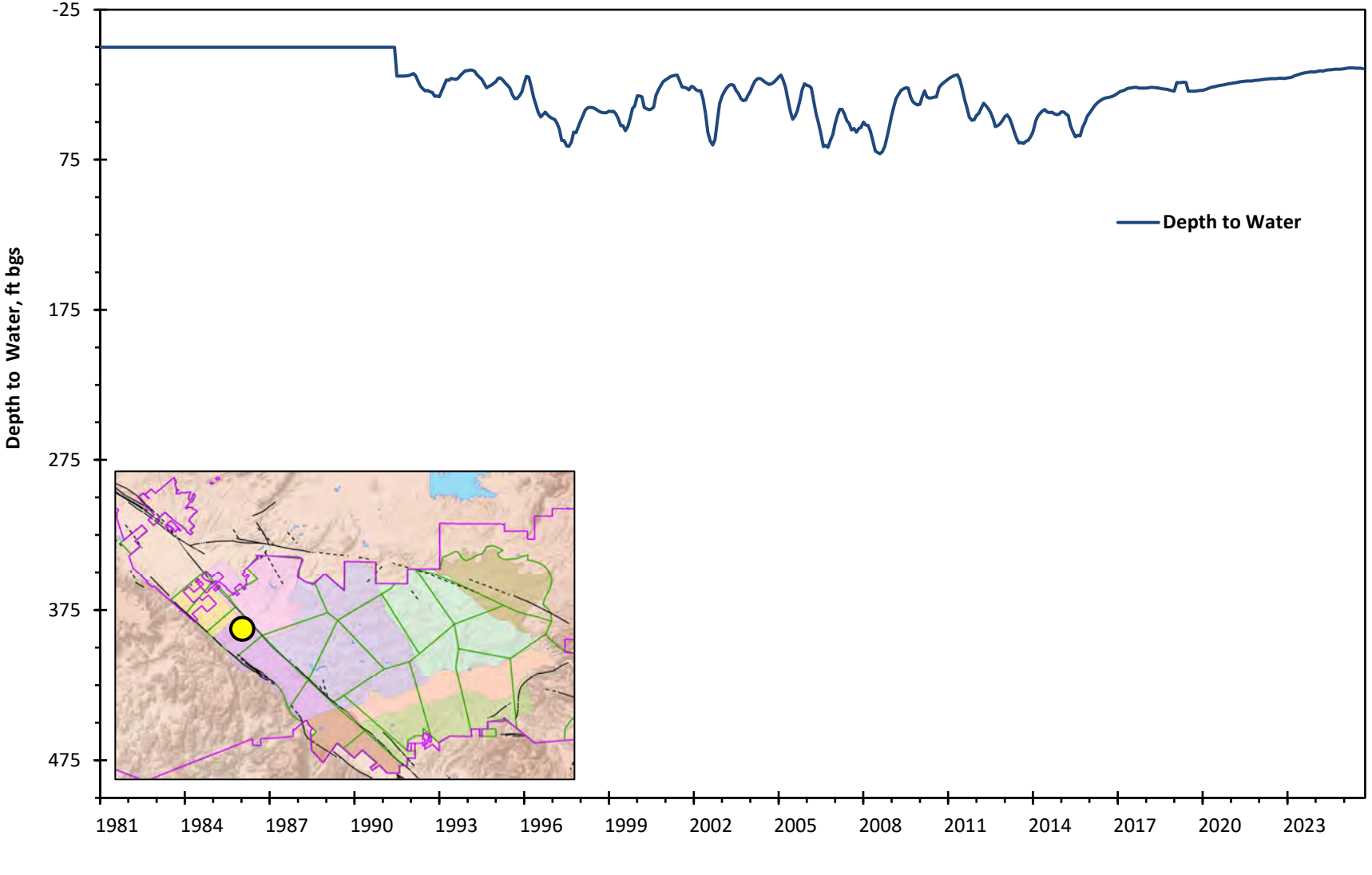
Long-Term Hydrograph - RCWD Well No. 466
Temecula Aquifer Index Well



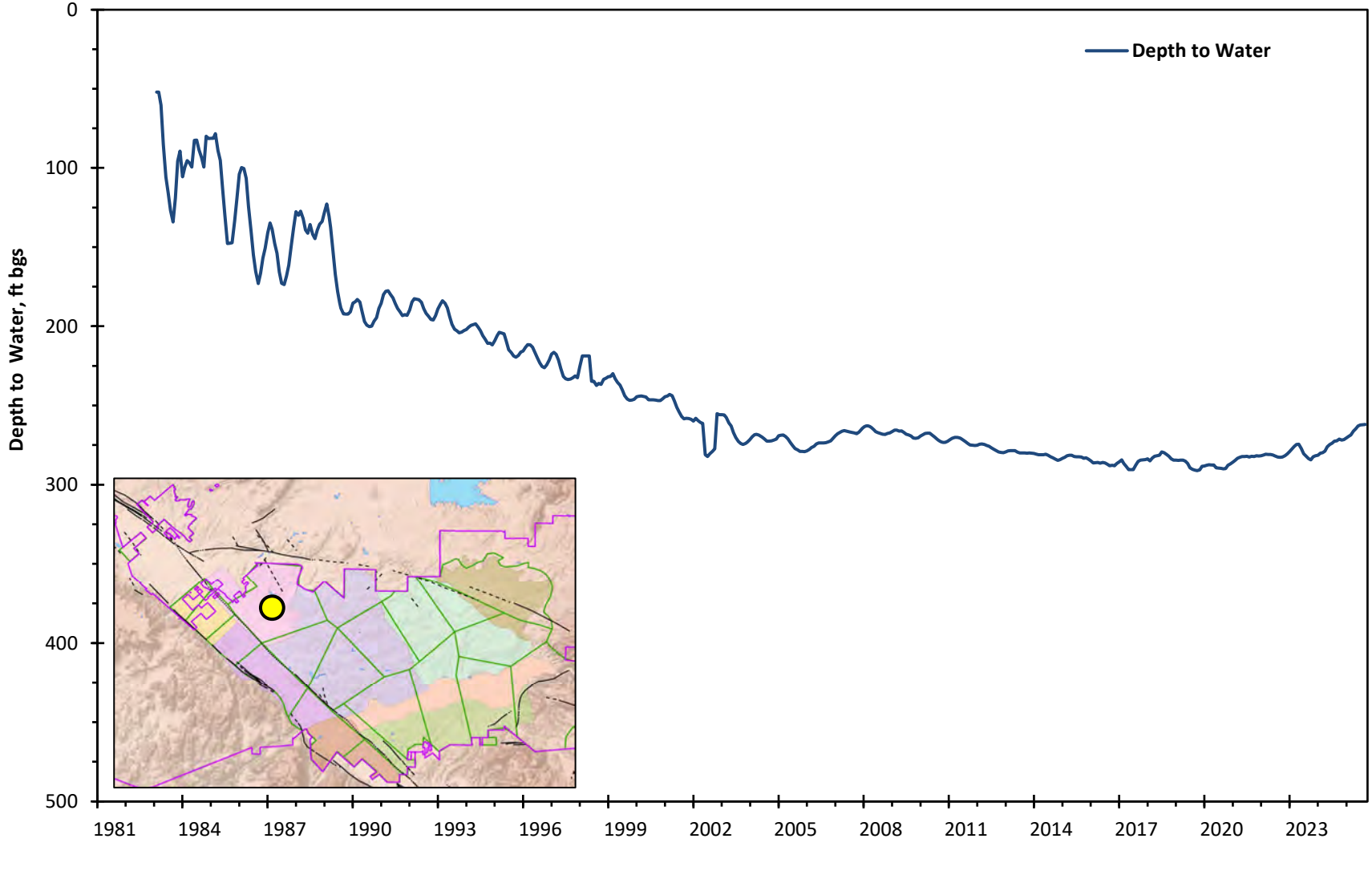
Long-Term Hydrograph - RCWD Well No. 468
Temecula Aquifer Index Well



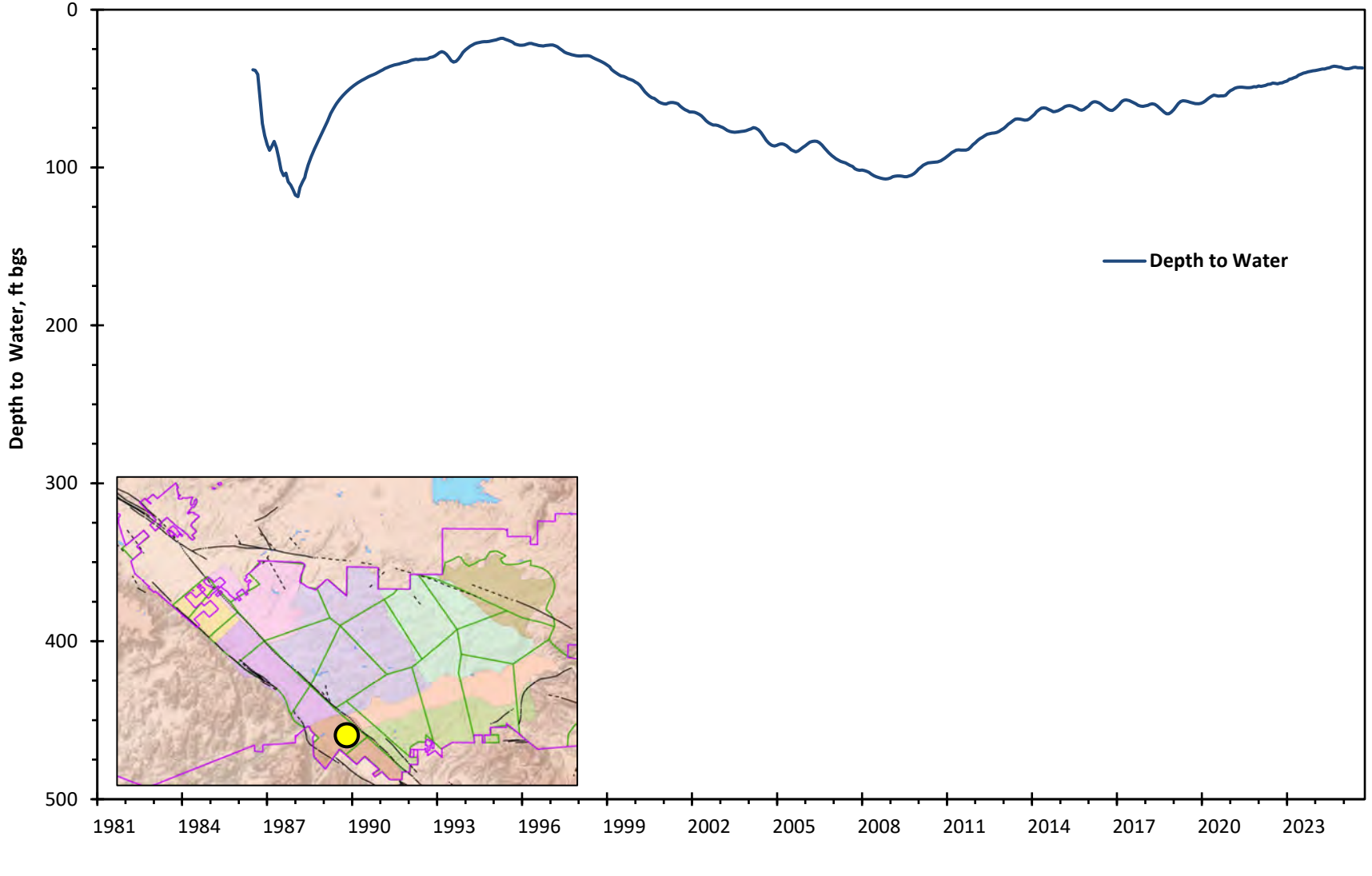
Long-Term Hydrograph - RCWD Well No. 473
Temecula Aquifer Index Well



Long-Term Hydrograph - RCWD Well No. 493
Temecula Aquifer Index Well



Long-Term Hydrograph - RCWD Well No. 495
Temecula Aquifer Index Well



APPENDIX C

Recharge and Production in Pauba Valley Subunit October 2020 to September 2025

GEOSCIENCE

APPENDIX C

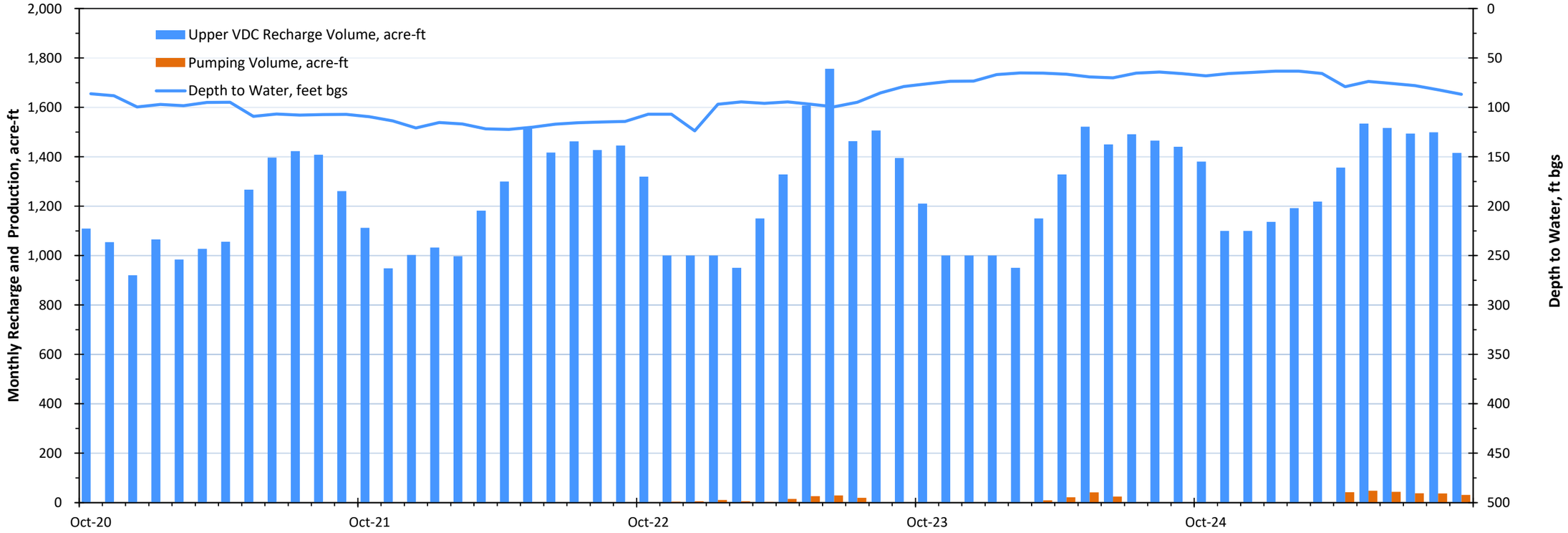
Recharge and Production in Pauba Valley Subunit

October 2020 to September 2025

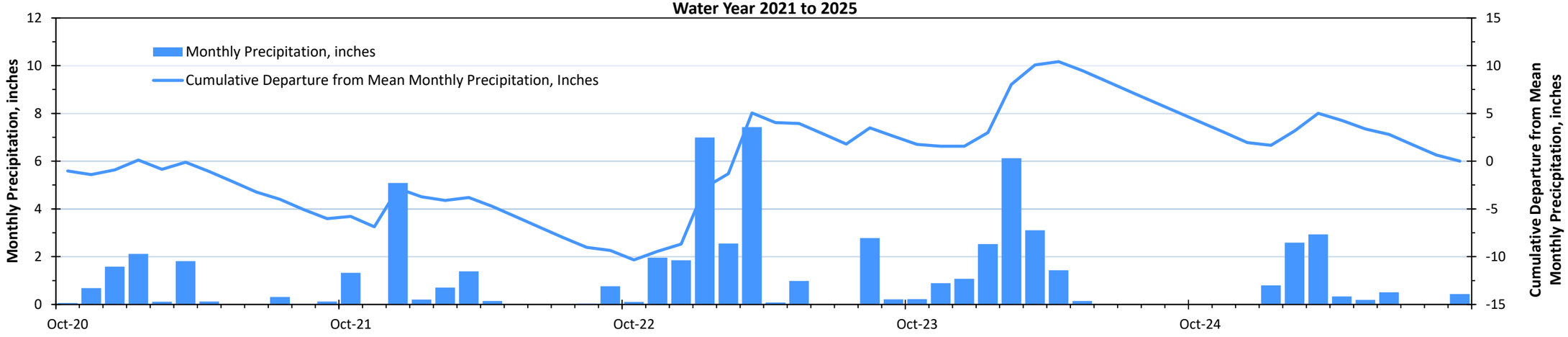
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RCWD Well No. 123 ..... C-1
RCWD Well No. 132 ..... C-2
RCWD Well No. 152 ..... C-3
RCWD Well No. 153 ..... C-4
RCWD Well No. 154 ..... C-5
RCWD Well No. 157 ..... C-6
RCWD Well No. 158 ..... C-7
RCWD Well No. 161 ..... C-8
RCWD Well No. 164 ..... C-9
RCWD Well No. 414 ..... C-10
RCWD Well No. 417 ..... C-11
RCWD Well No. 426 ..... C-12
RCWD Well No. 480 ..... C-13
RCWD Well No. 481 ..... C-14
RCWD Well No. 482 ..... C-15
RCWD Well No. 483 ..... C-16
RCWD Well No. 484 ..... C-17
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RCWD Well No. 486 ..... C-19
RCWD Well No. 499 ..... C-20
RCWD Well No. 500 ..... C-21

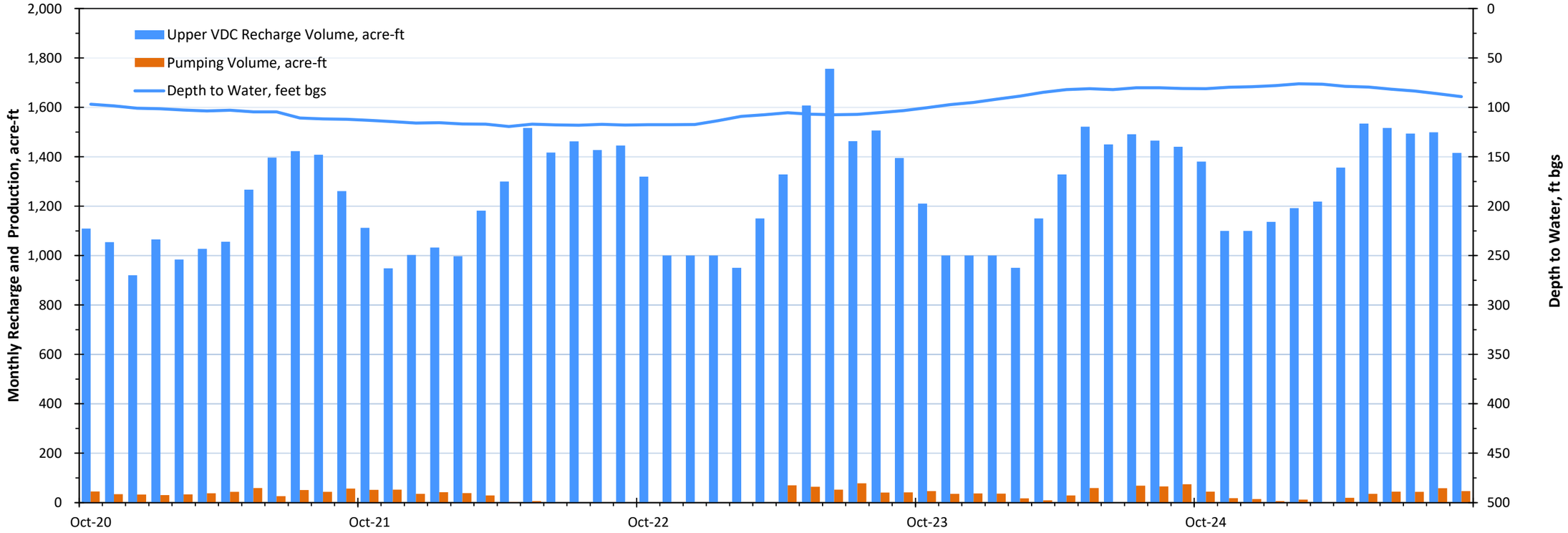
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 123
Water Year 2021 to 2025



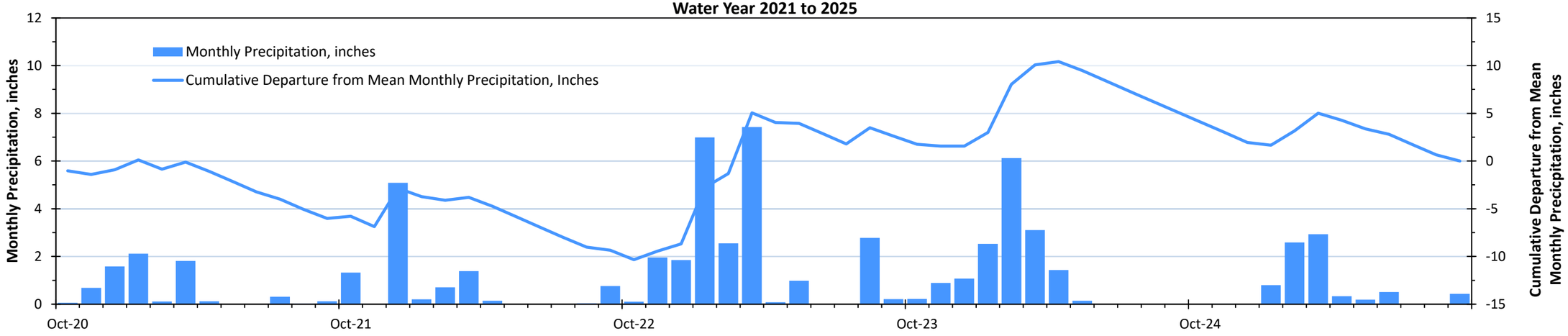
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



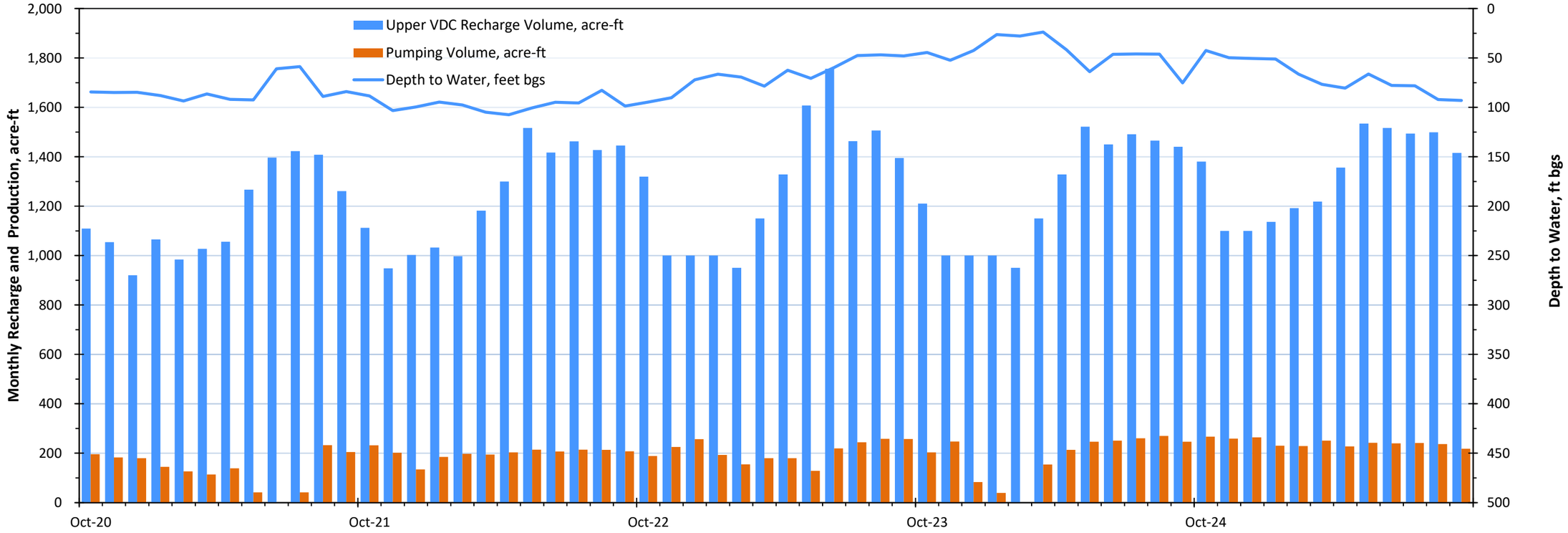
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 132
Water Year 2021 to 2025



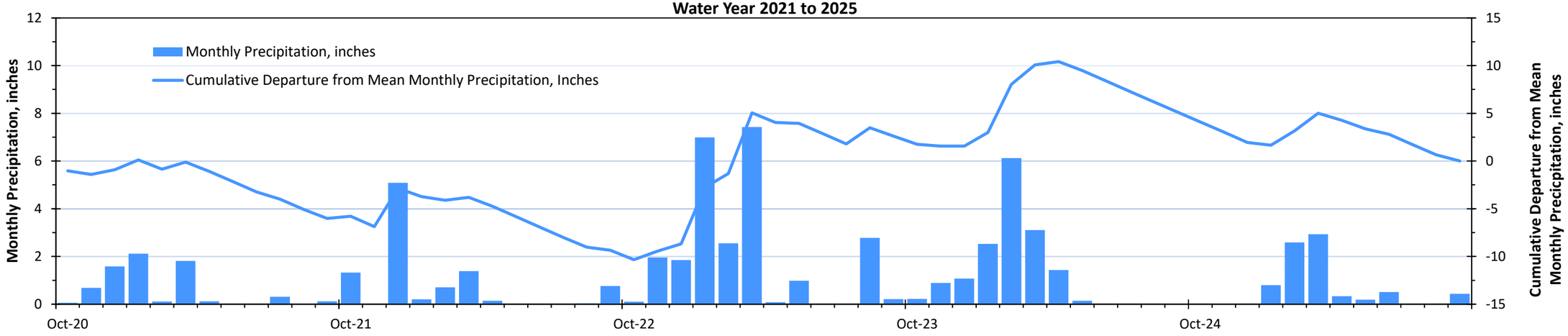
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



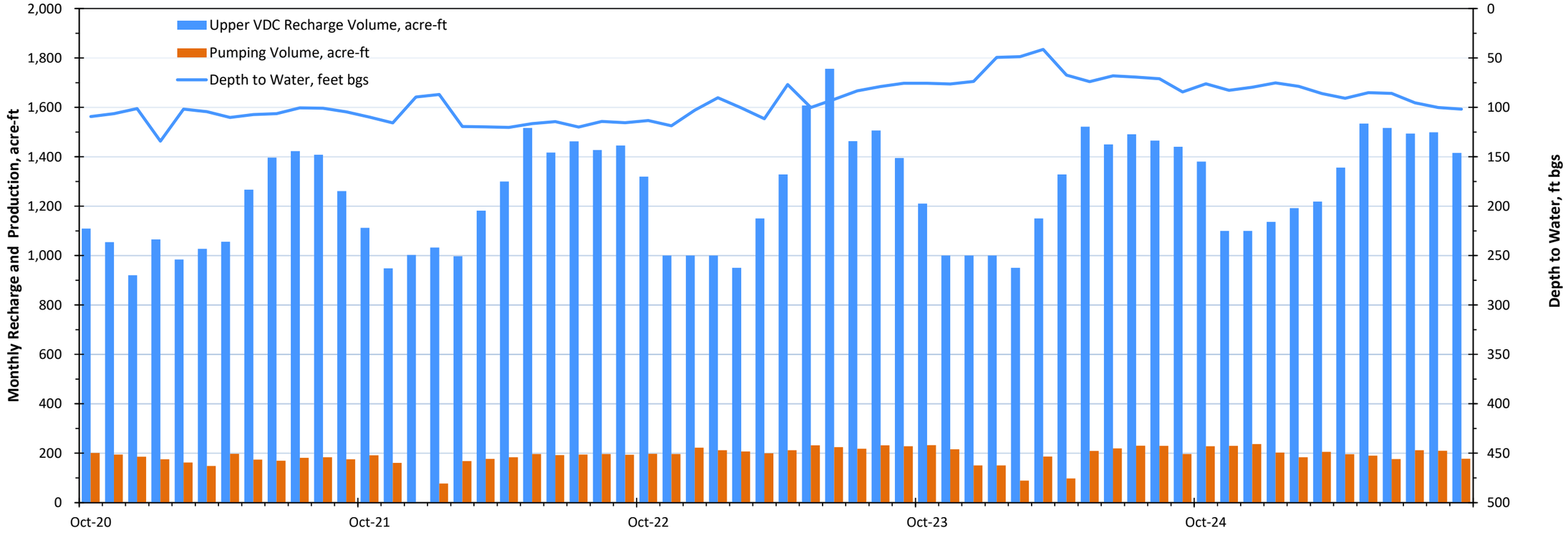
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 152
Water Year 2021 to 2025



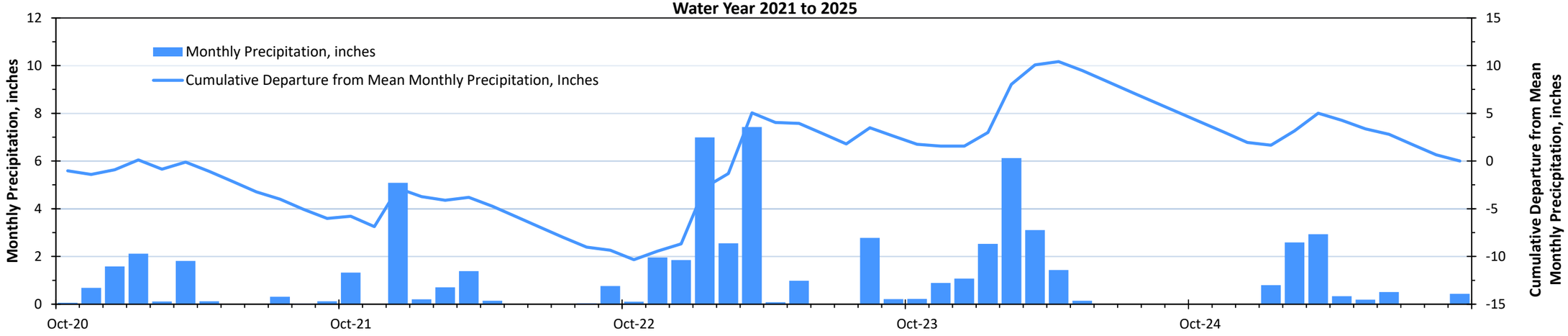
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



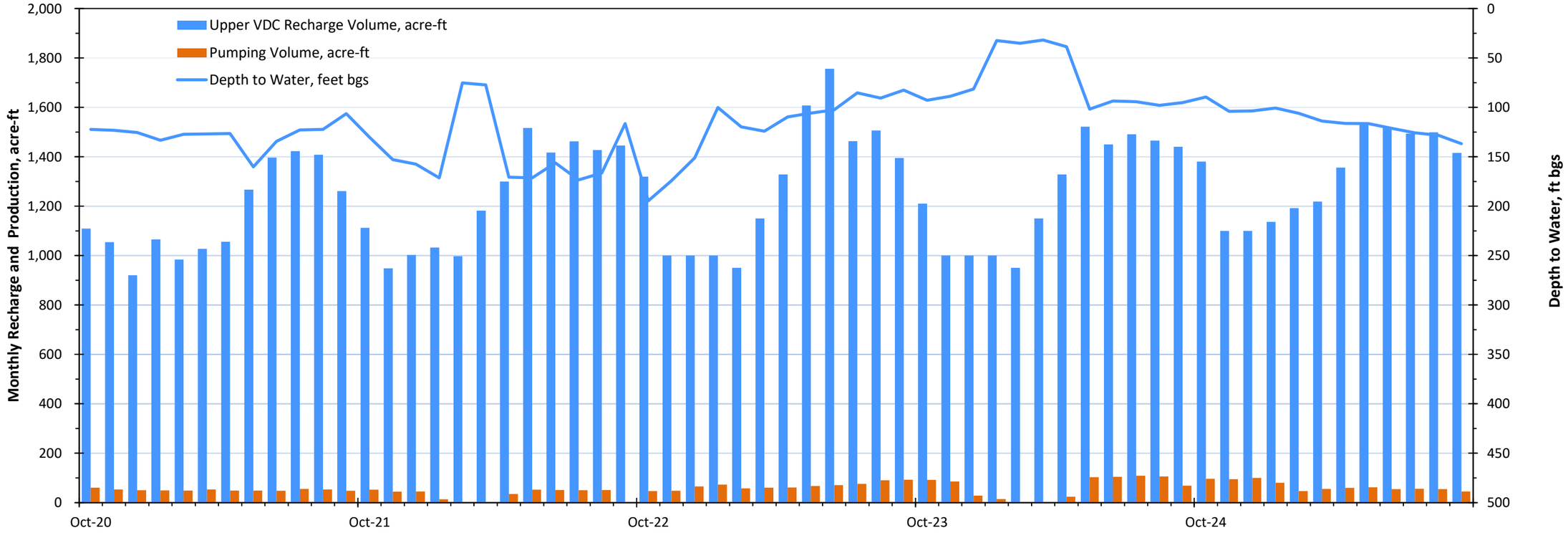
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 153
Water Year 2021 to 2025



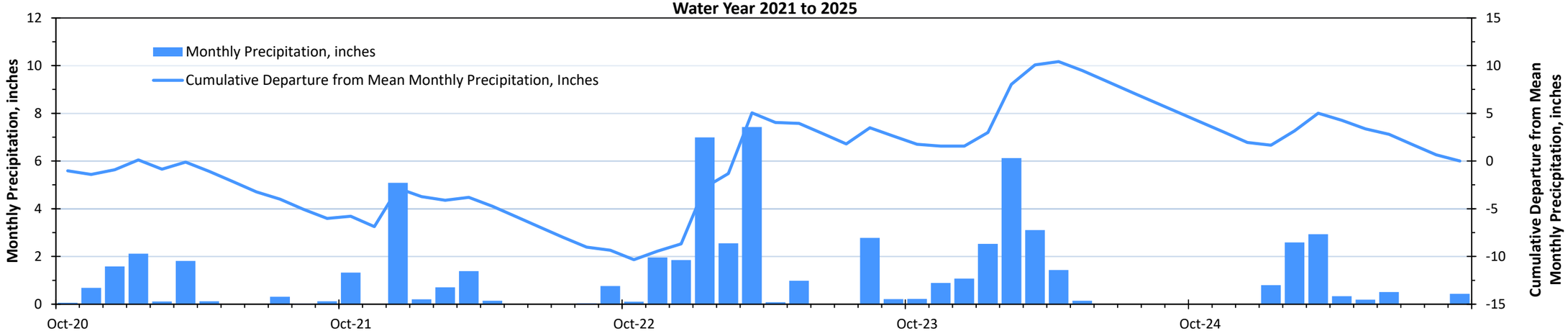
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



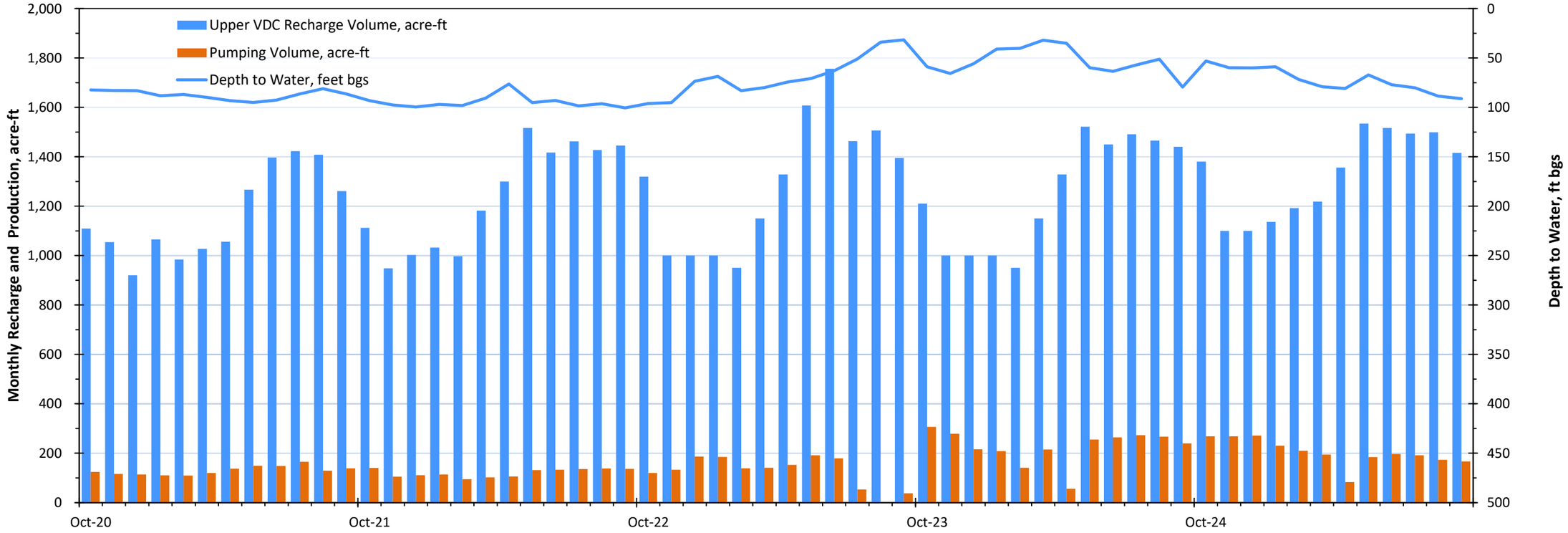
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 154
Water Year 2021 to 2025



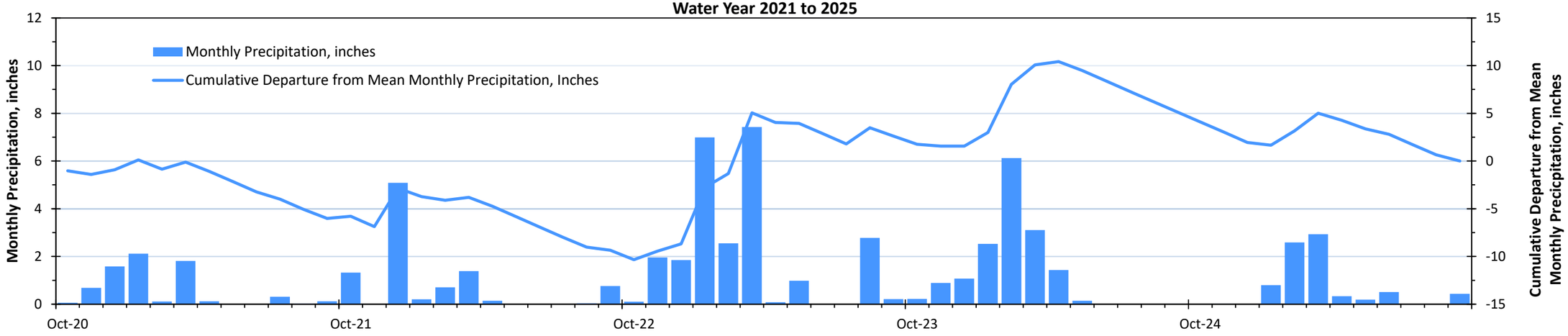
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



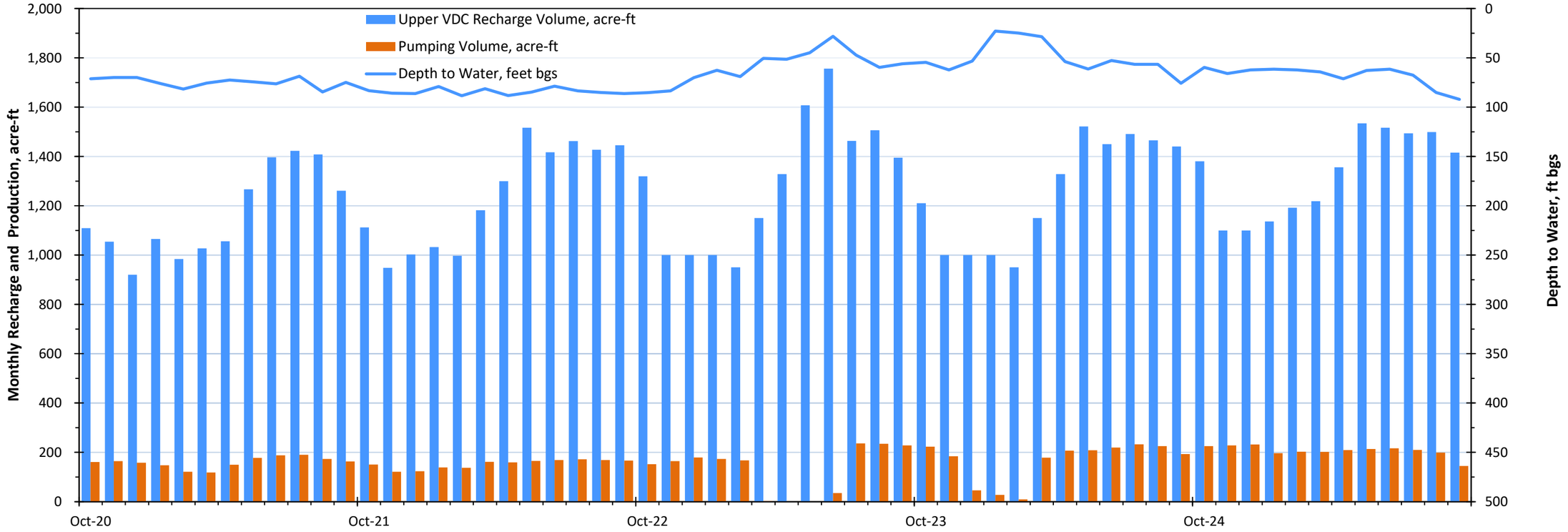
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 157
Water Year 2021 to 2025



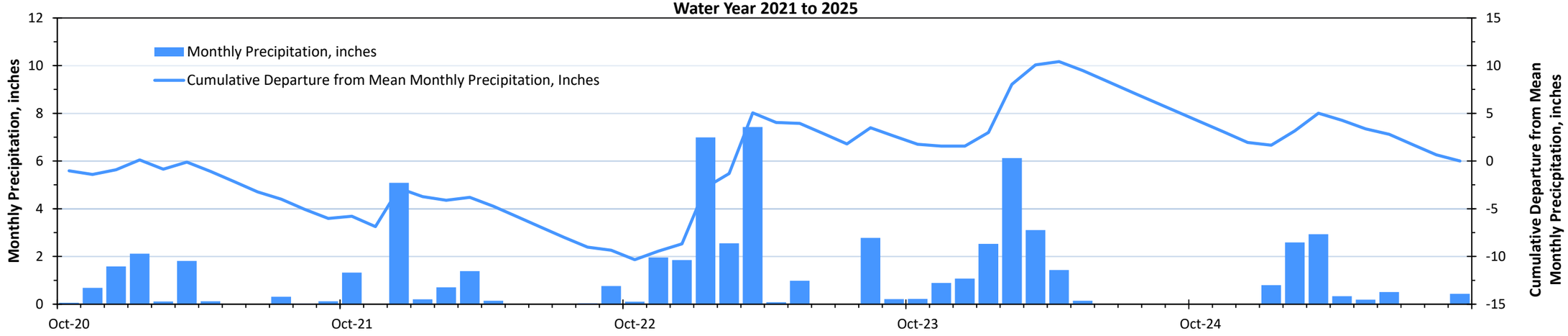
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



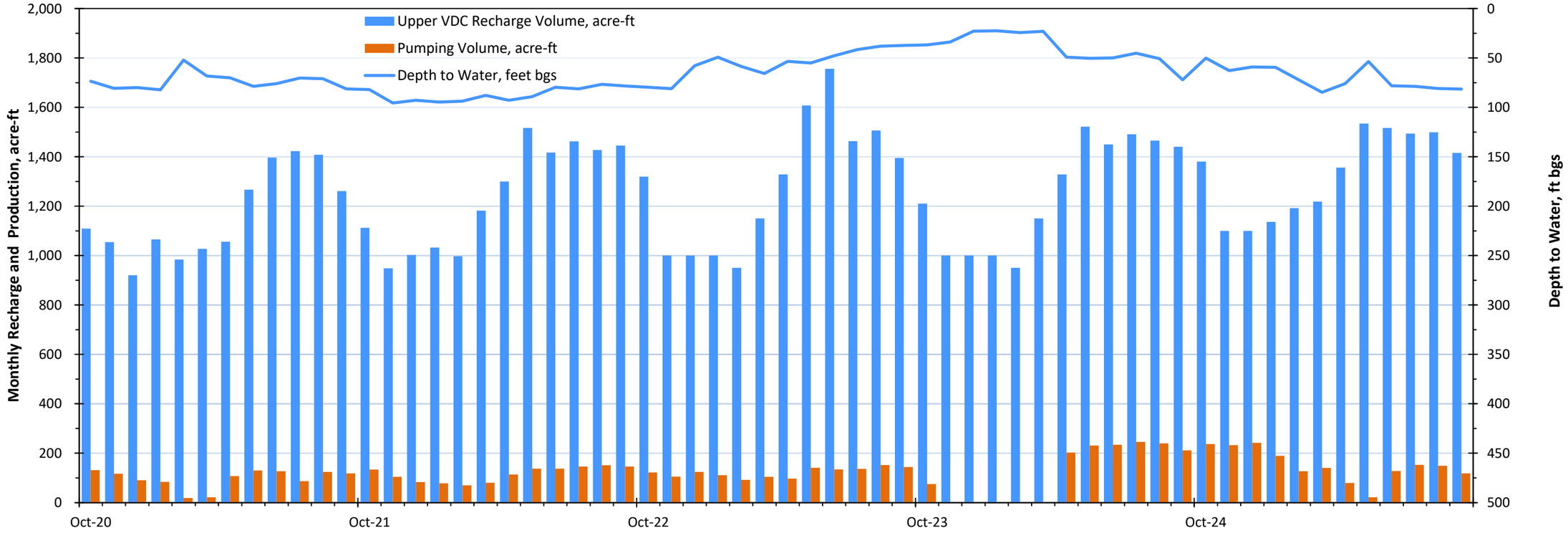
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 158
Water Year 2021 to 2025



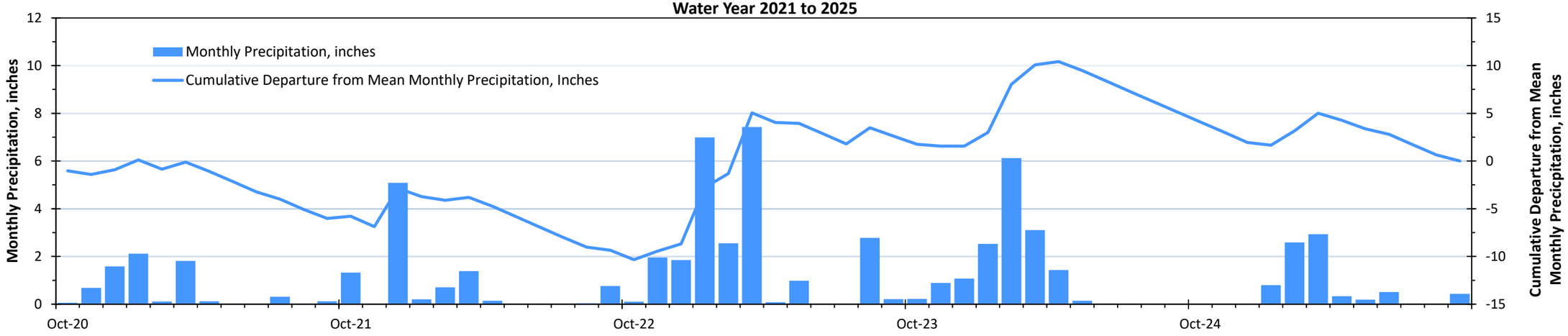
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



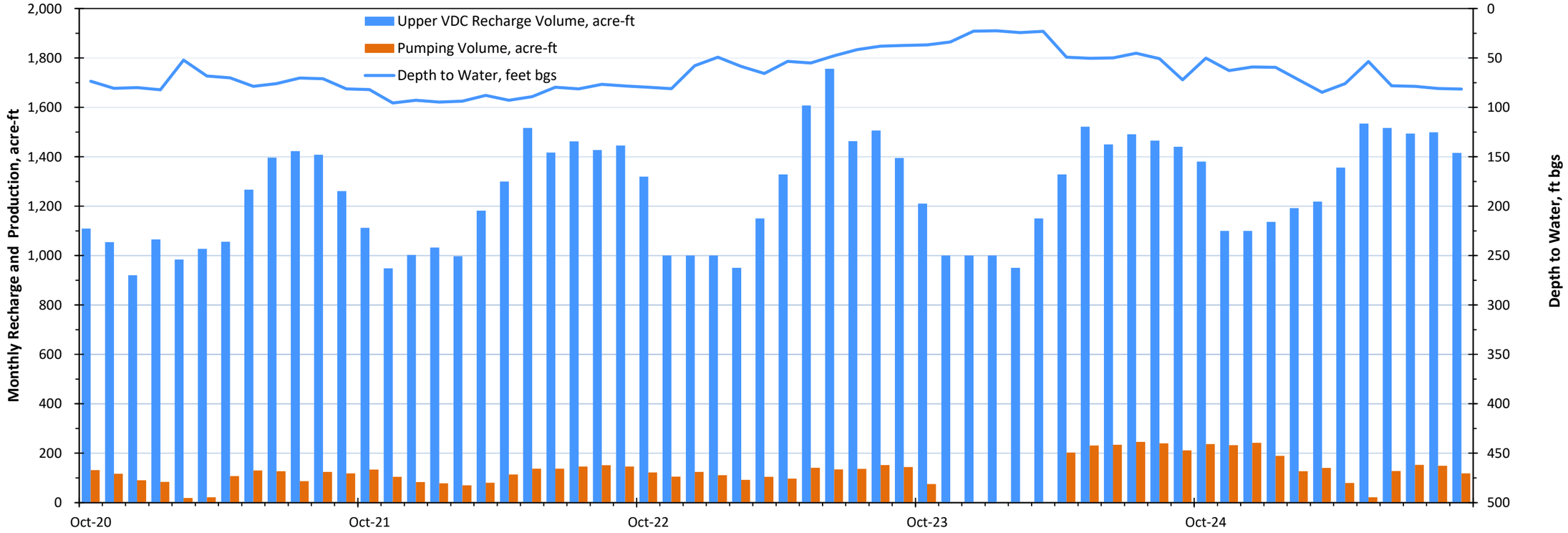
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 161
Water Year 2021 to 2025



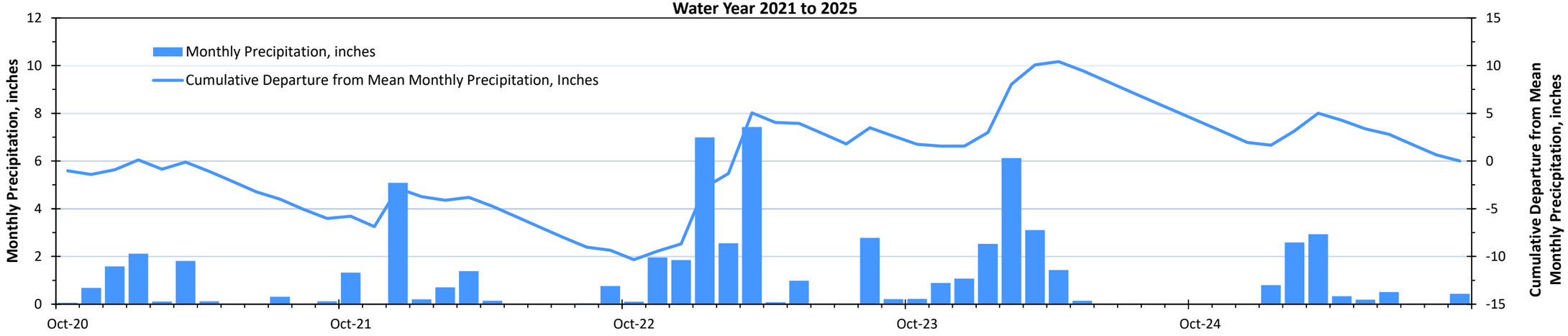
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



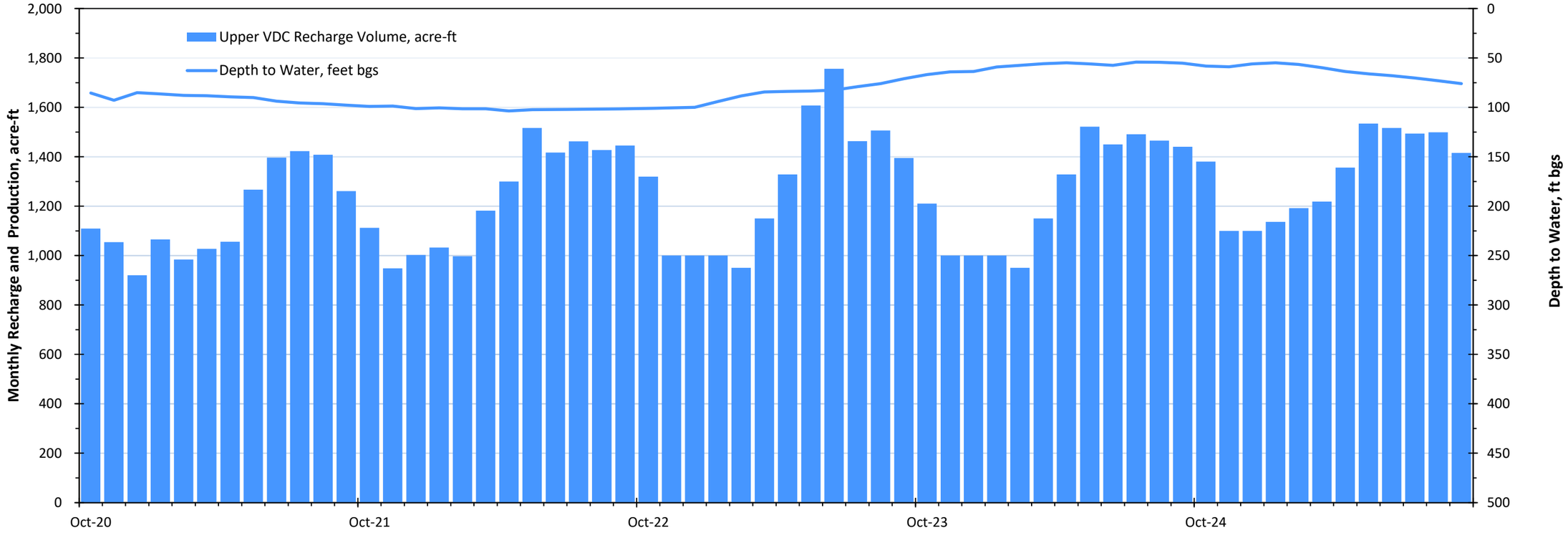
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 164
Water Year 2021 to 2025



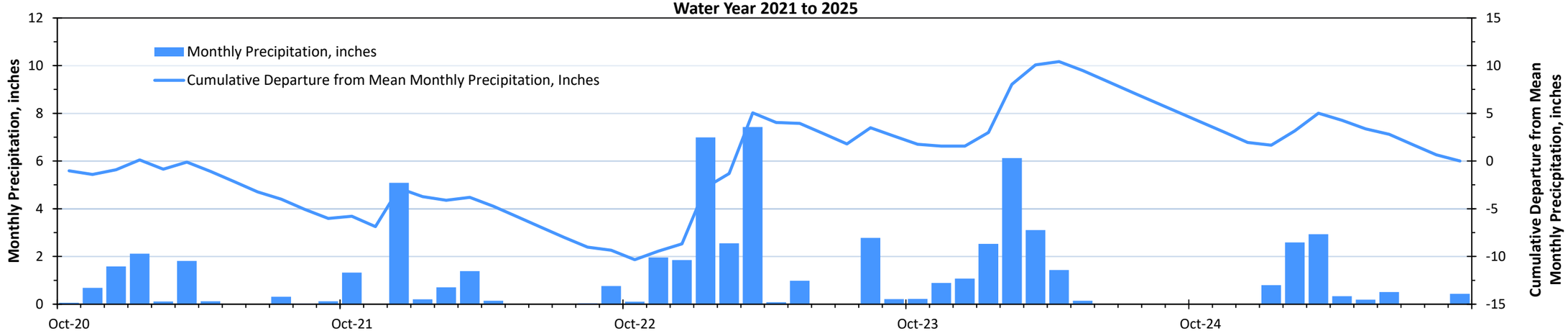
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



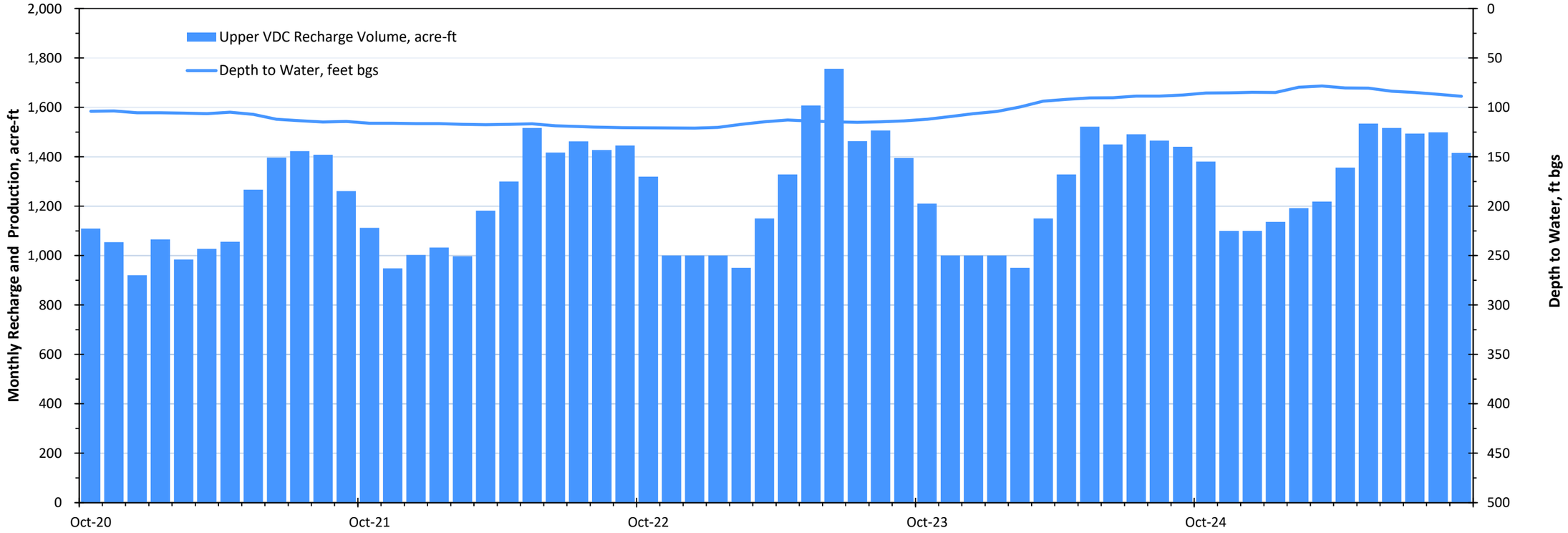
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 414
Water Year 2021 to 2025



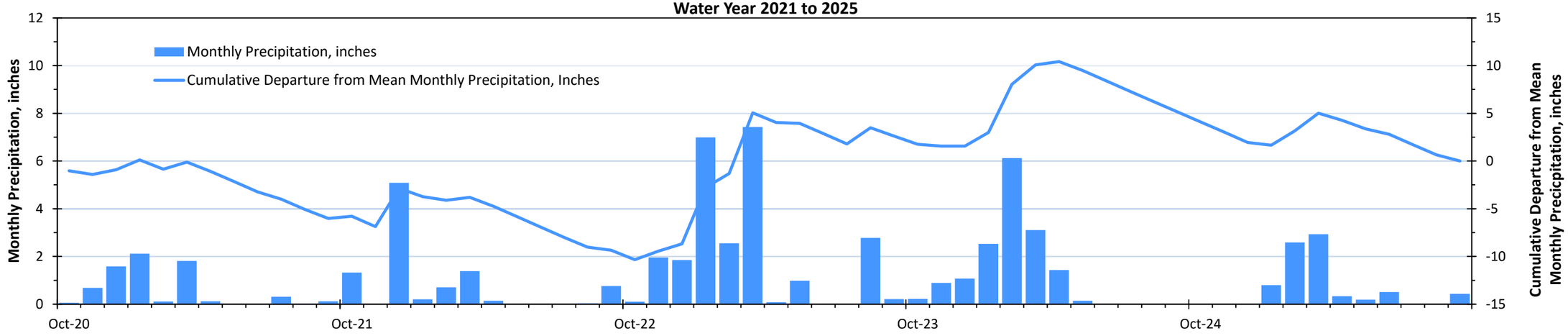
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



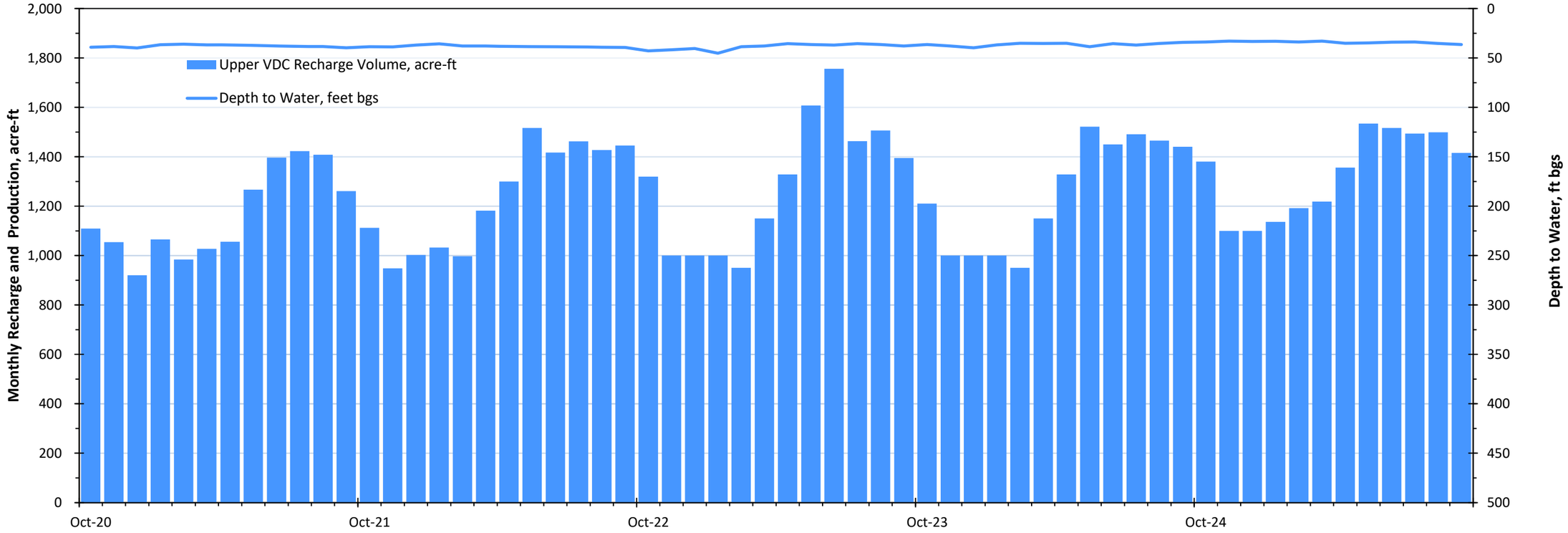
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 417
Water Year 2021 to 2025



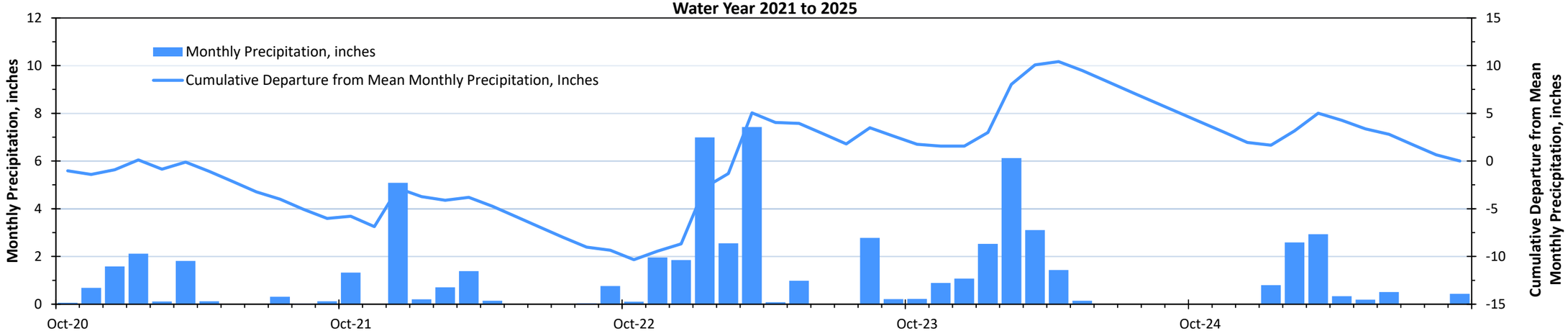
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



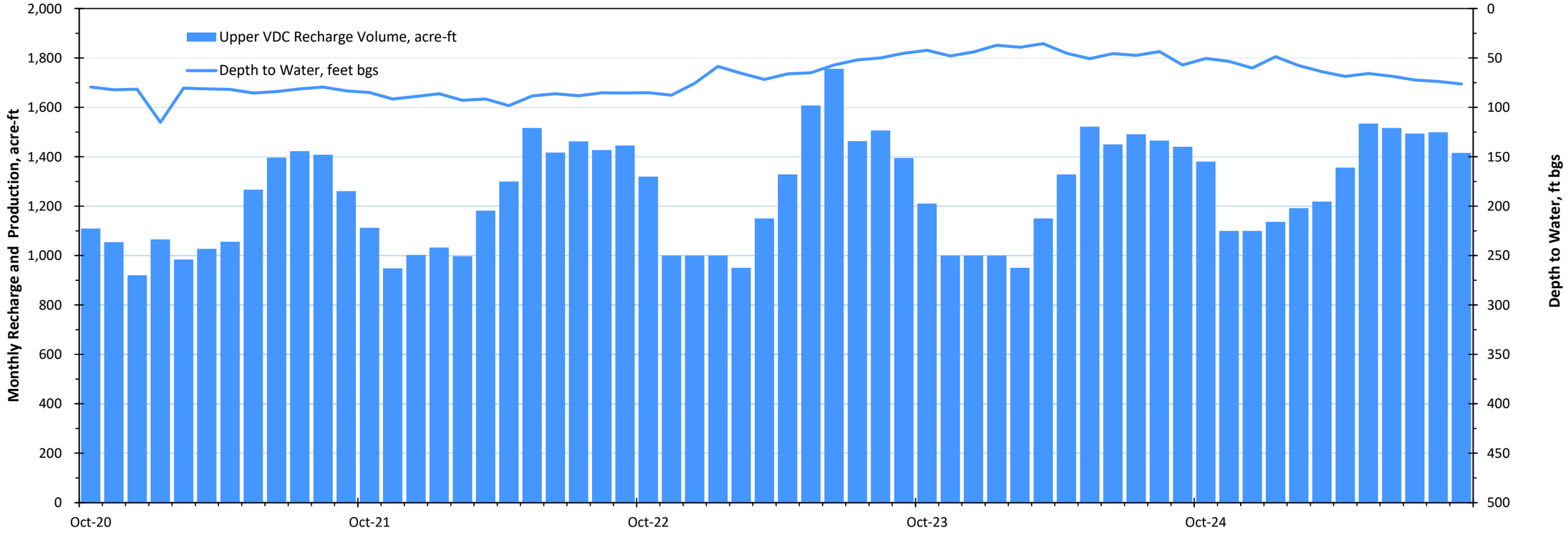
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Water Year 2021 to 2025



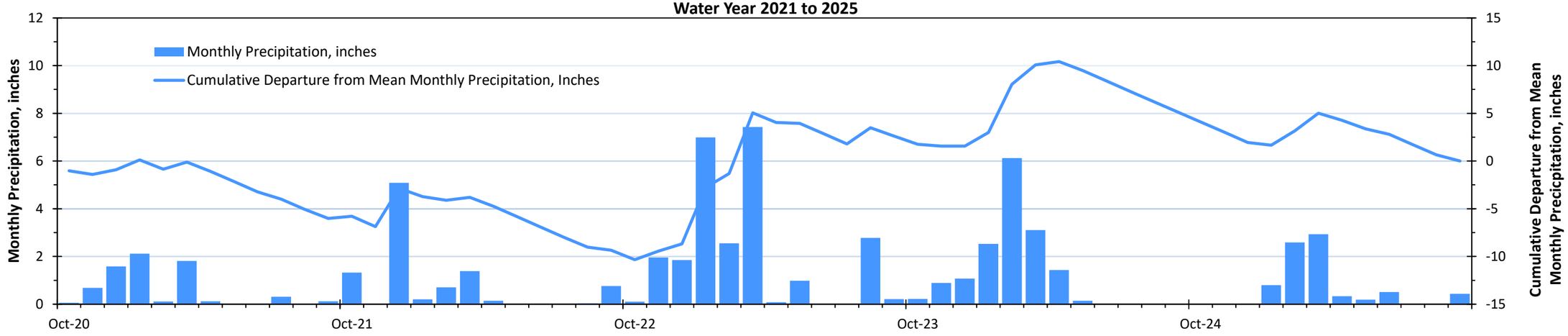
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



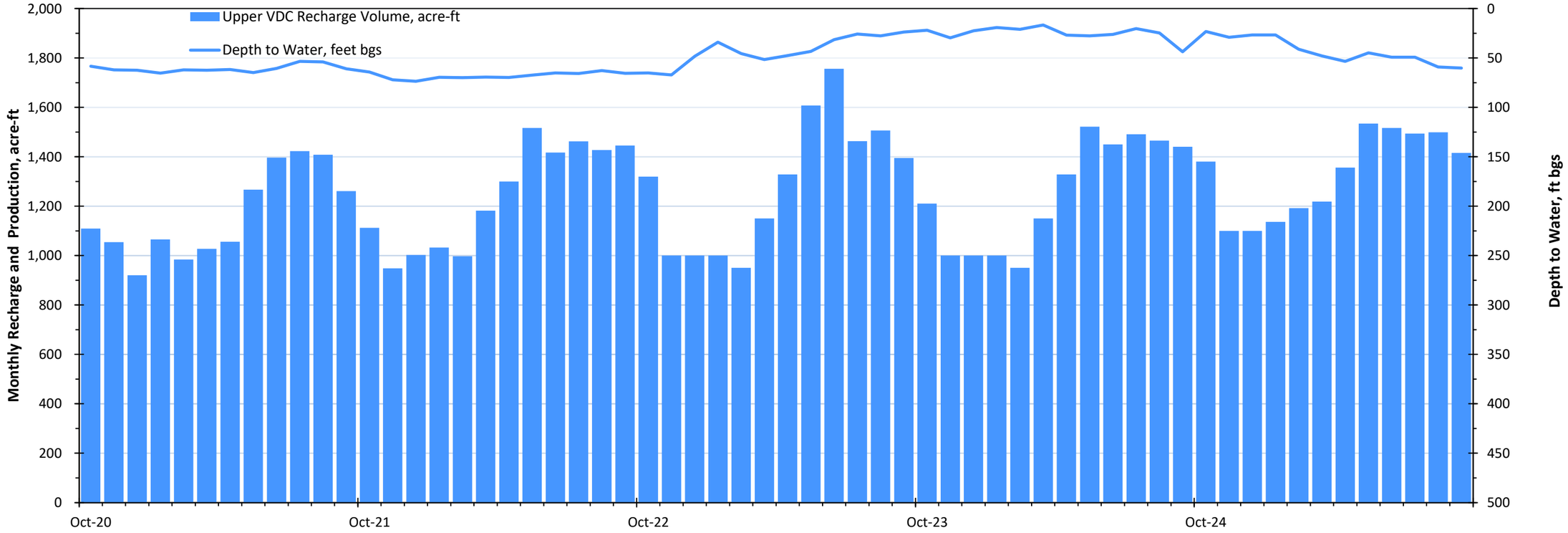
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 480
Water Year 2021 to 2025



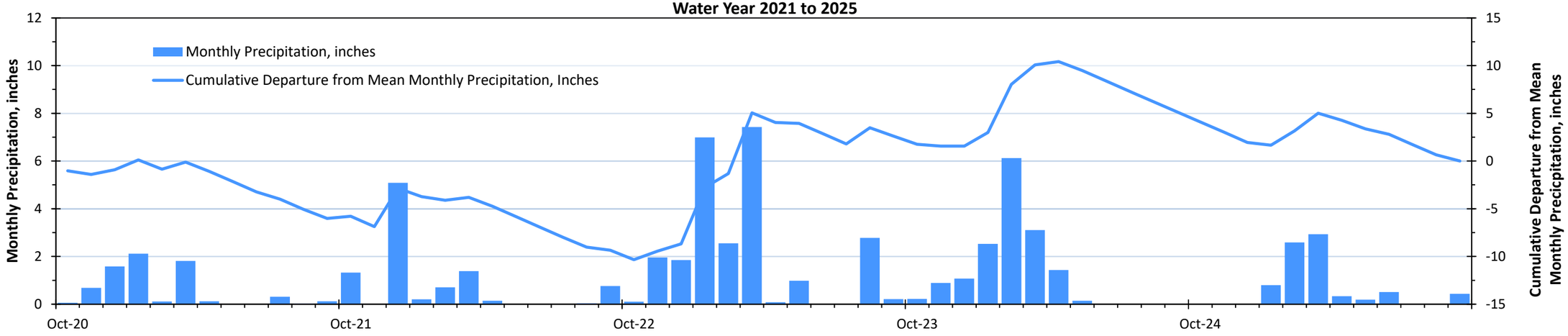
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



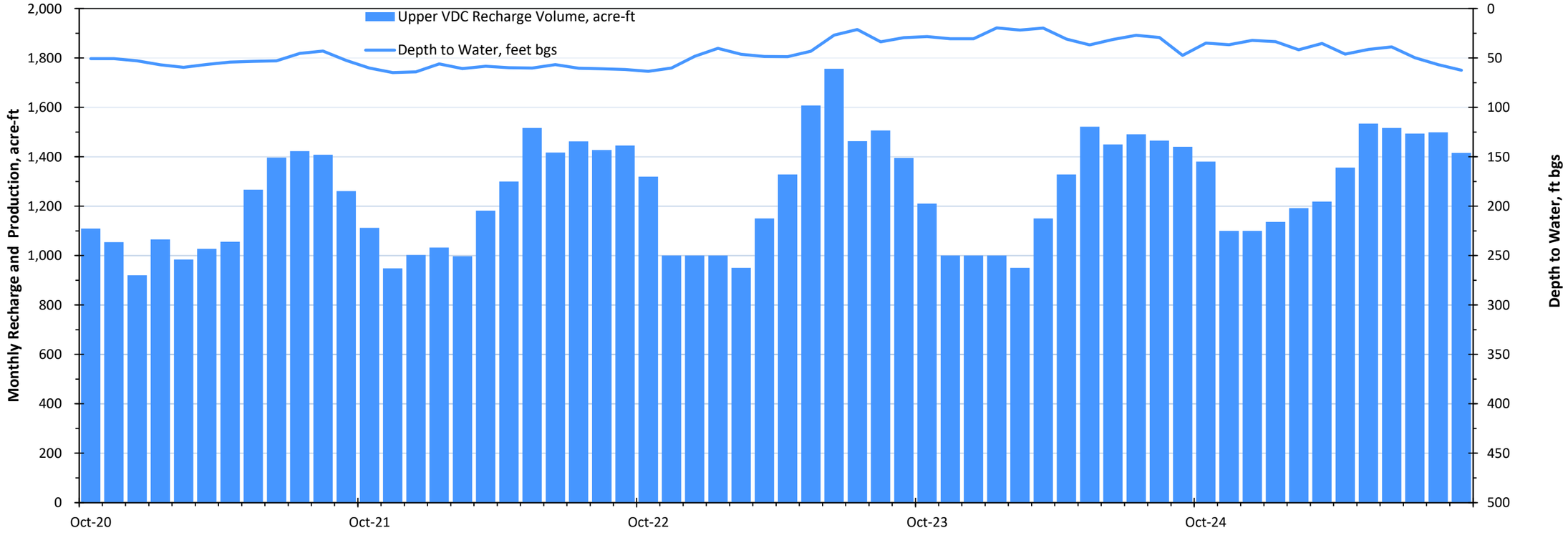
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 481
Water Year 2021 to 2025



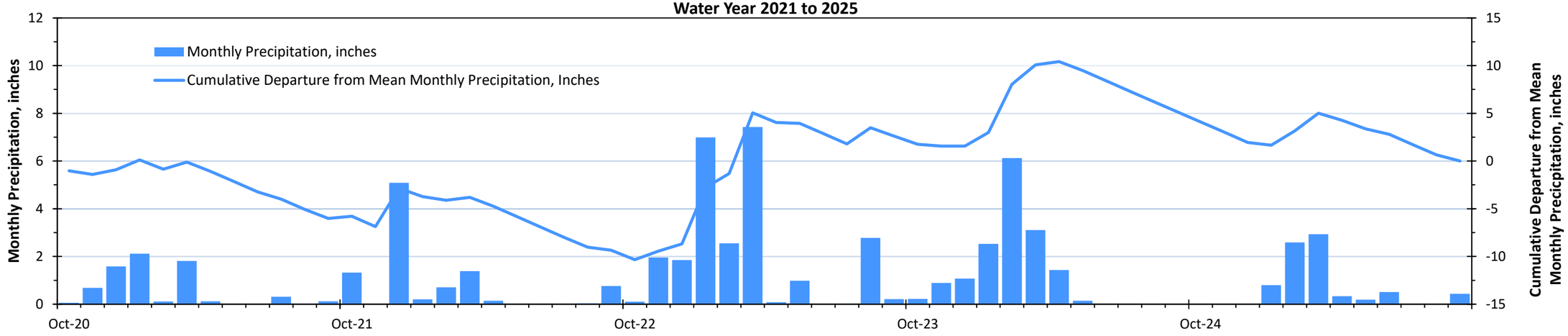
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



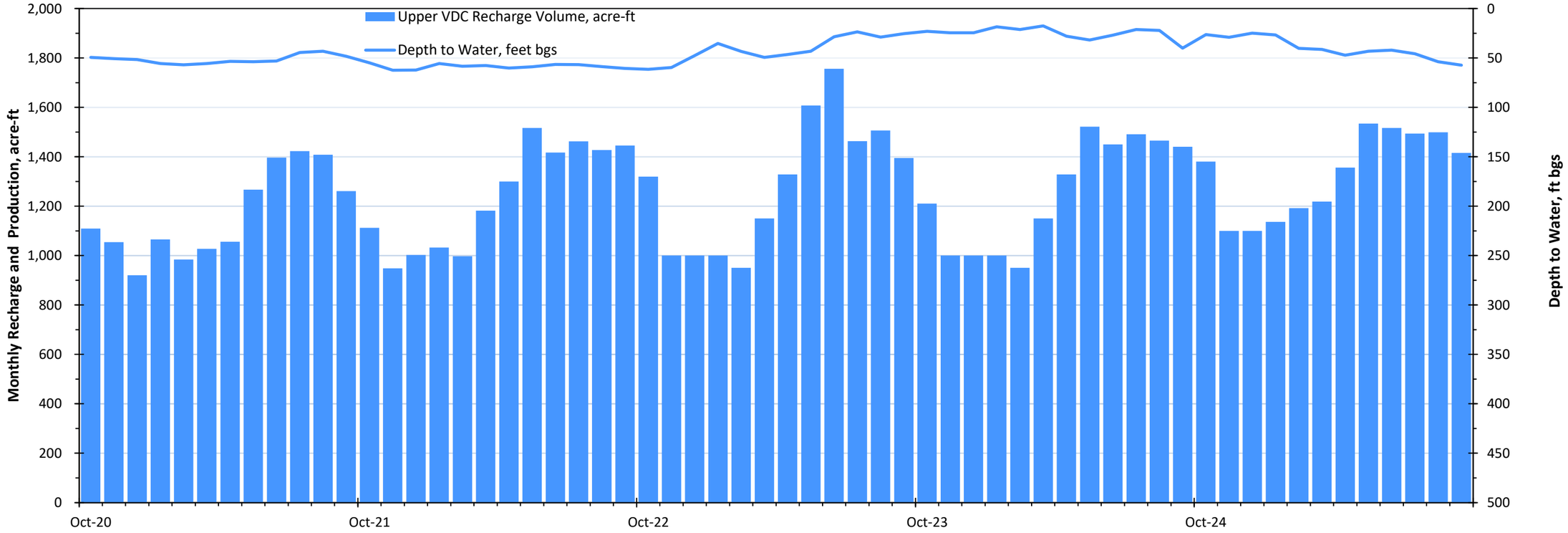
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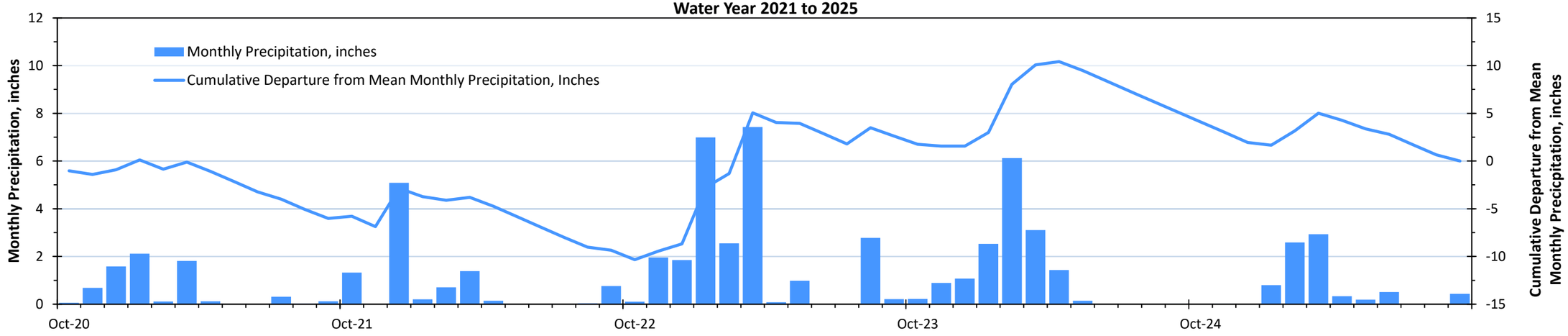
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



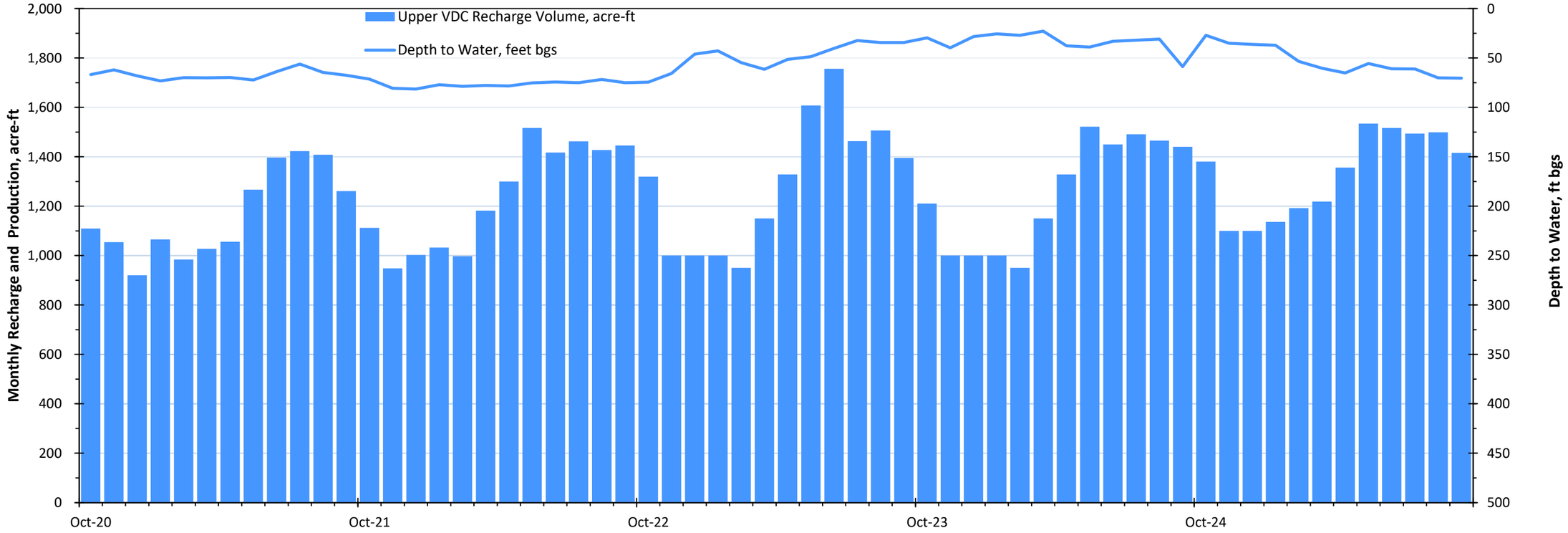
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 483
Water Year 2021 to 2025



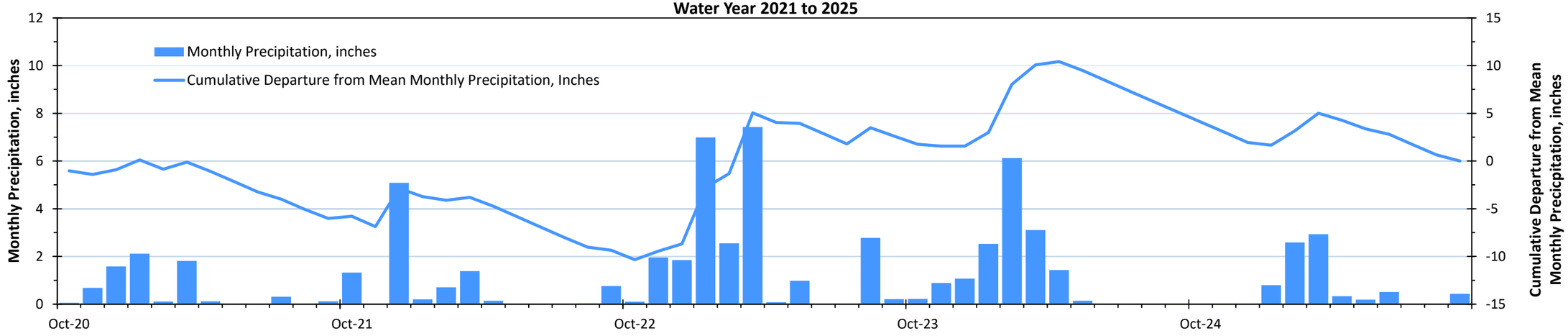
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



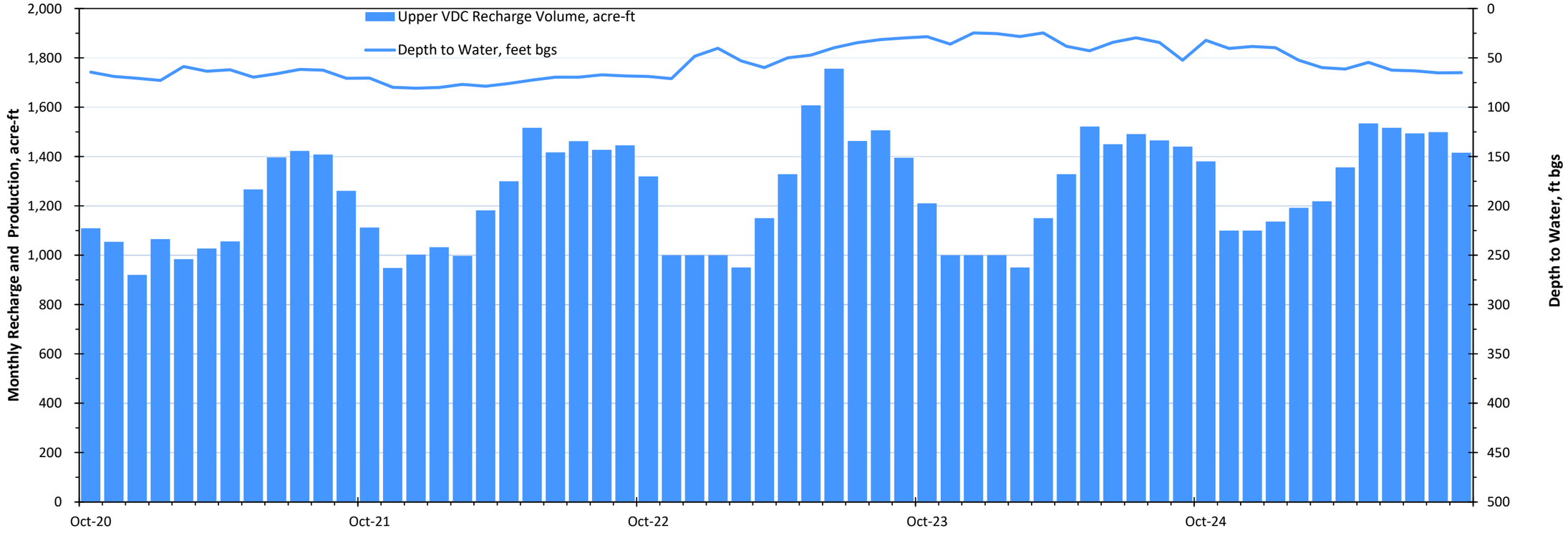
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 484
Water Year 2021 to 2025



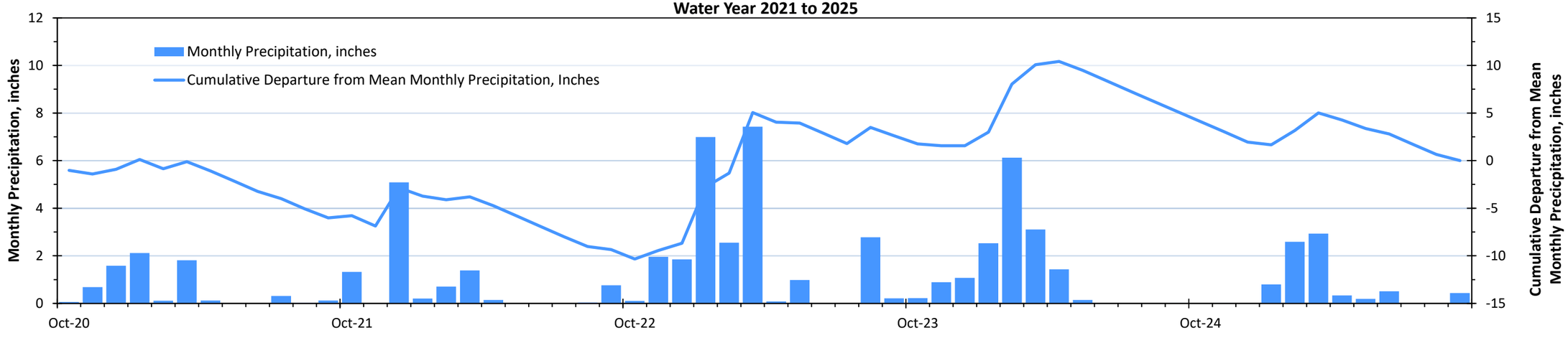
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Water Year 2021 to 2025



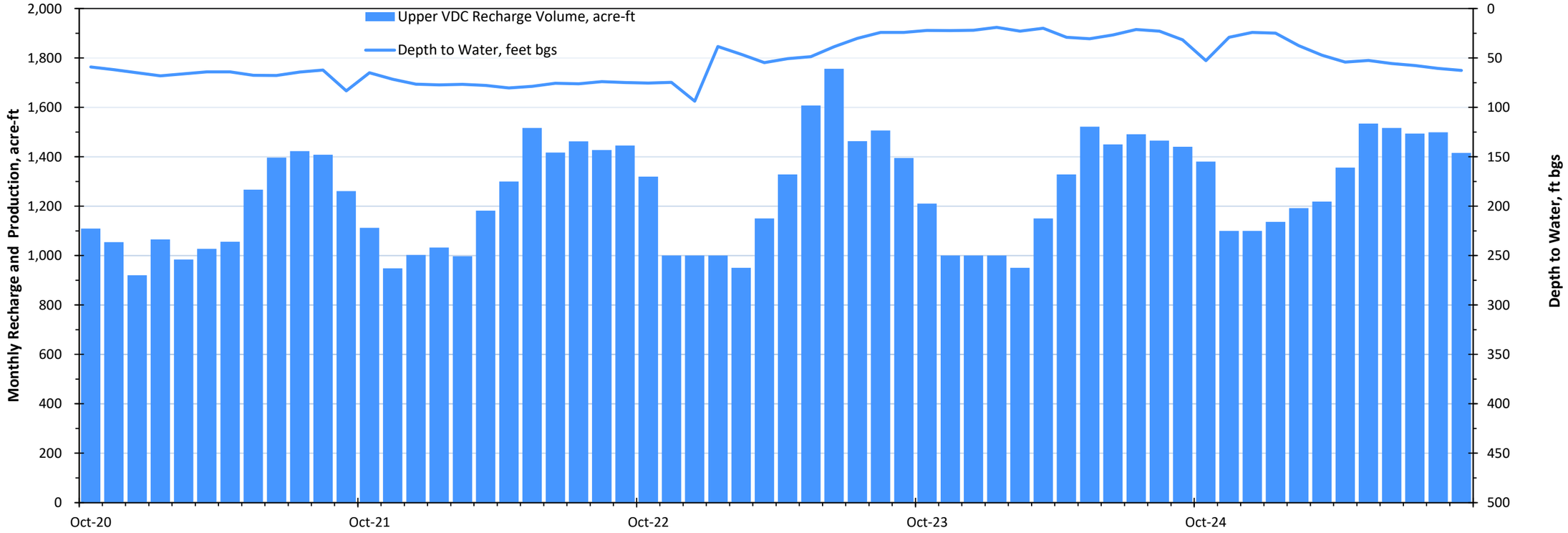
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 485
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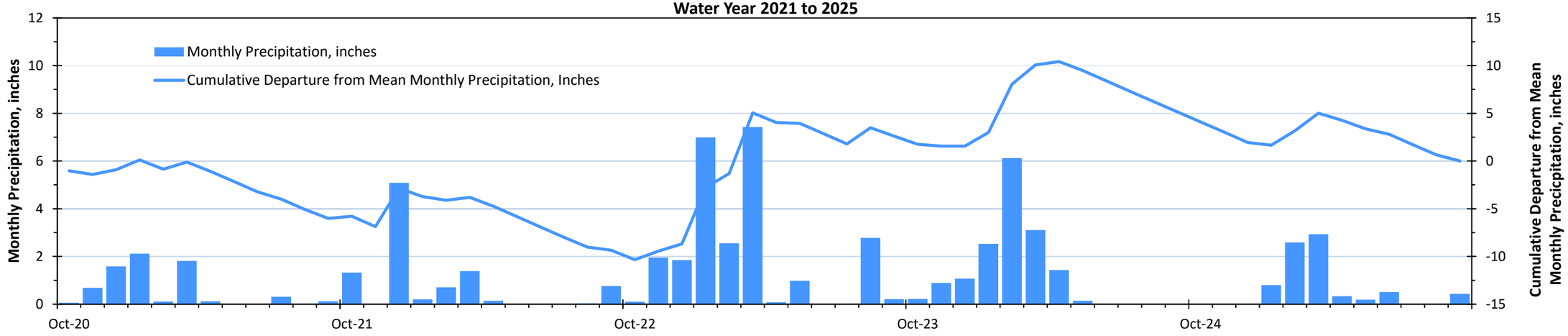
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Water Year 2021 to 2025



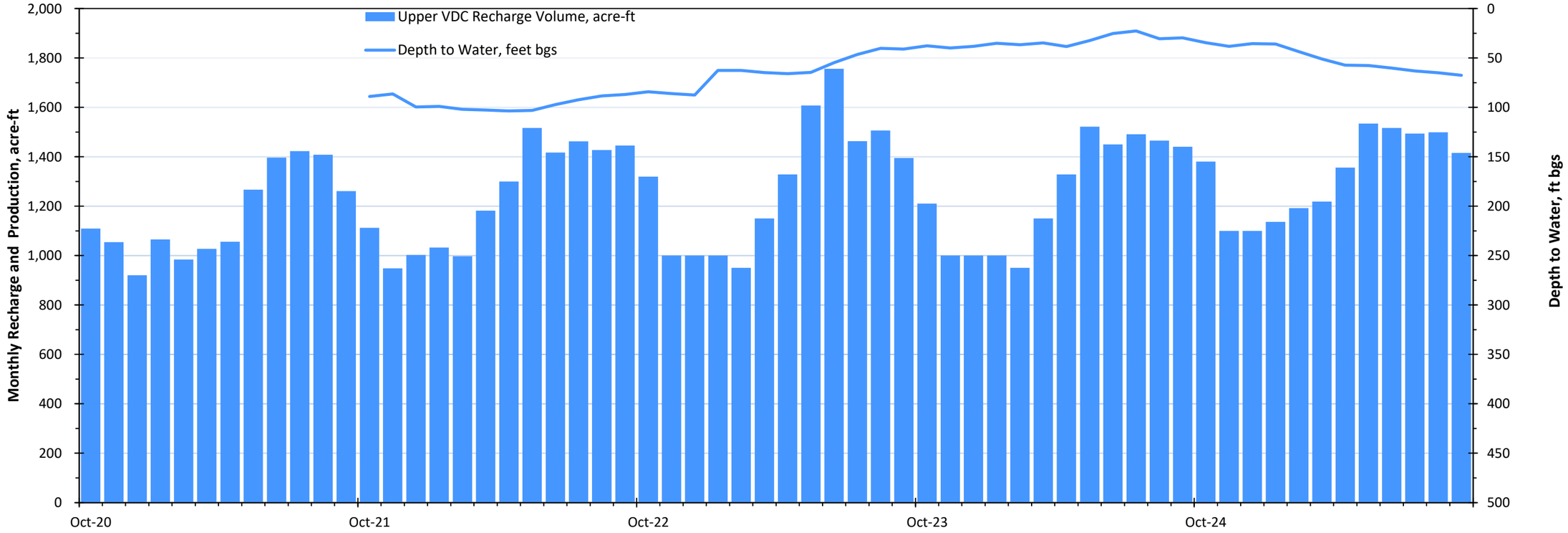
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 486
Water Year 2021 to 2025



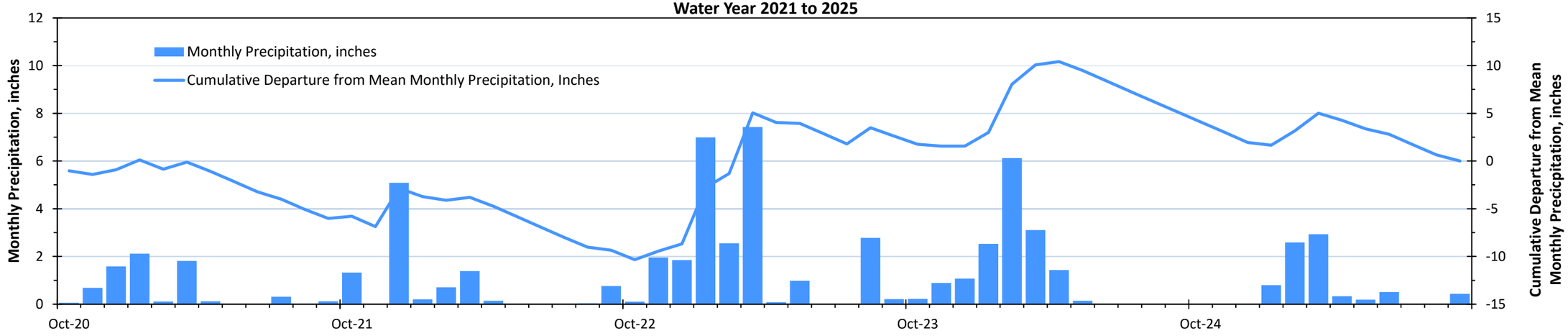
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



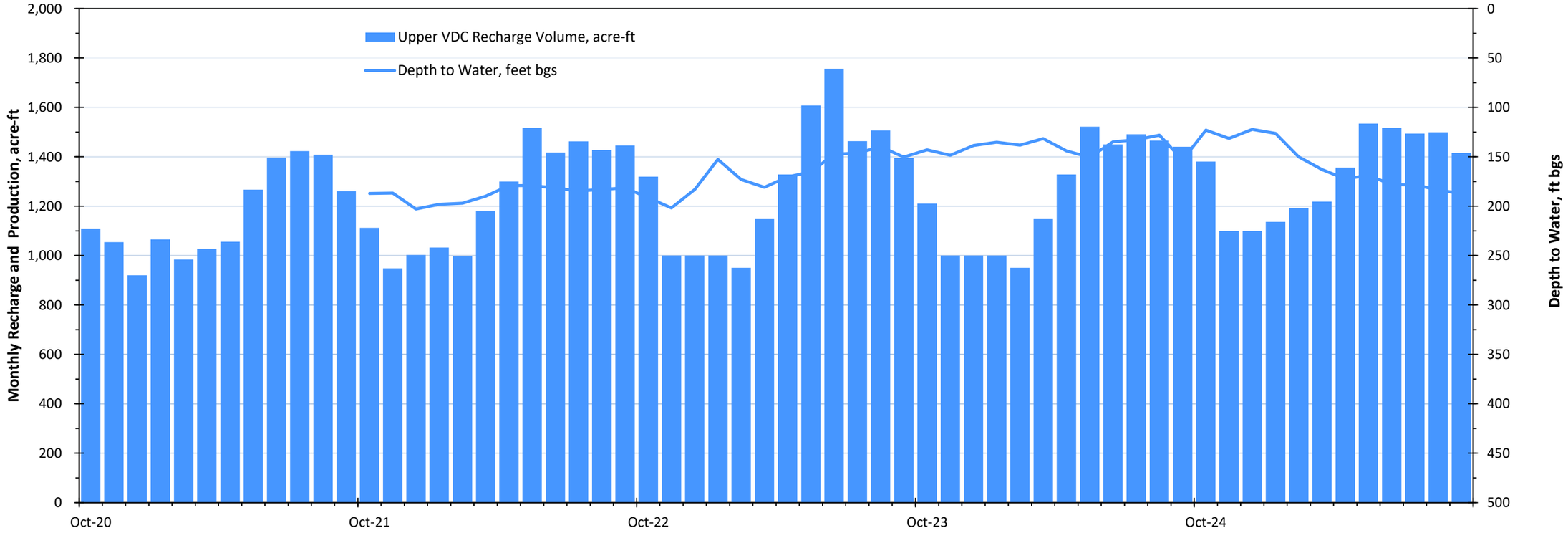
Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 499
Water Year 2021 to 2025



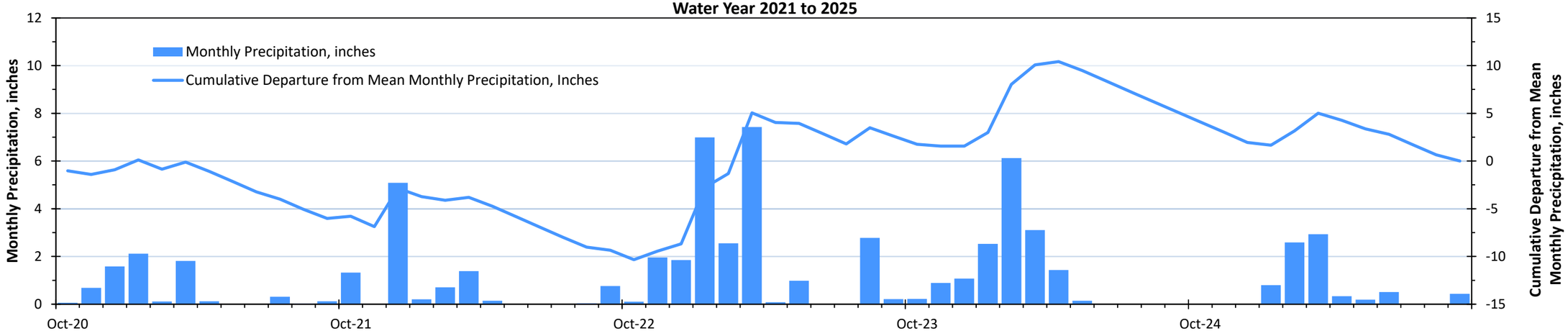
Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



Monthly Pumping, Upper VDC Recharge, and Depth to Water for Well 500
Water Year 2021 to 2025



Cumulative Departure from Mean Monthly Precipitation Temecula Station
Water Year 2021 to 2025



APPENDIX D

Western Municipal Water District Wells

Long-Term Hydrographs and Production – January 1981 to September 2025

GEOSCIENCE

APPENDIX D

Western Municipal Water District Wells

Long-Term Hydrographs and Production

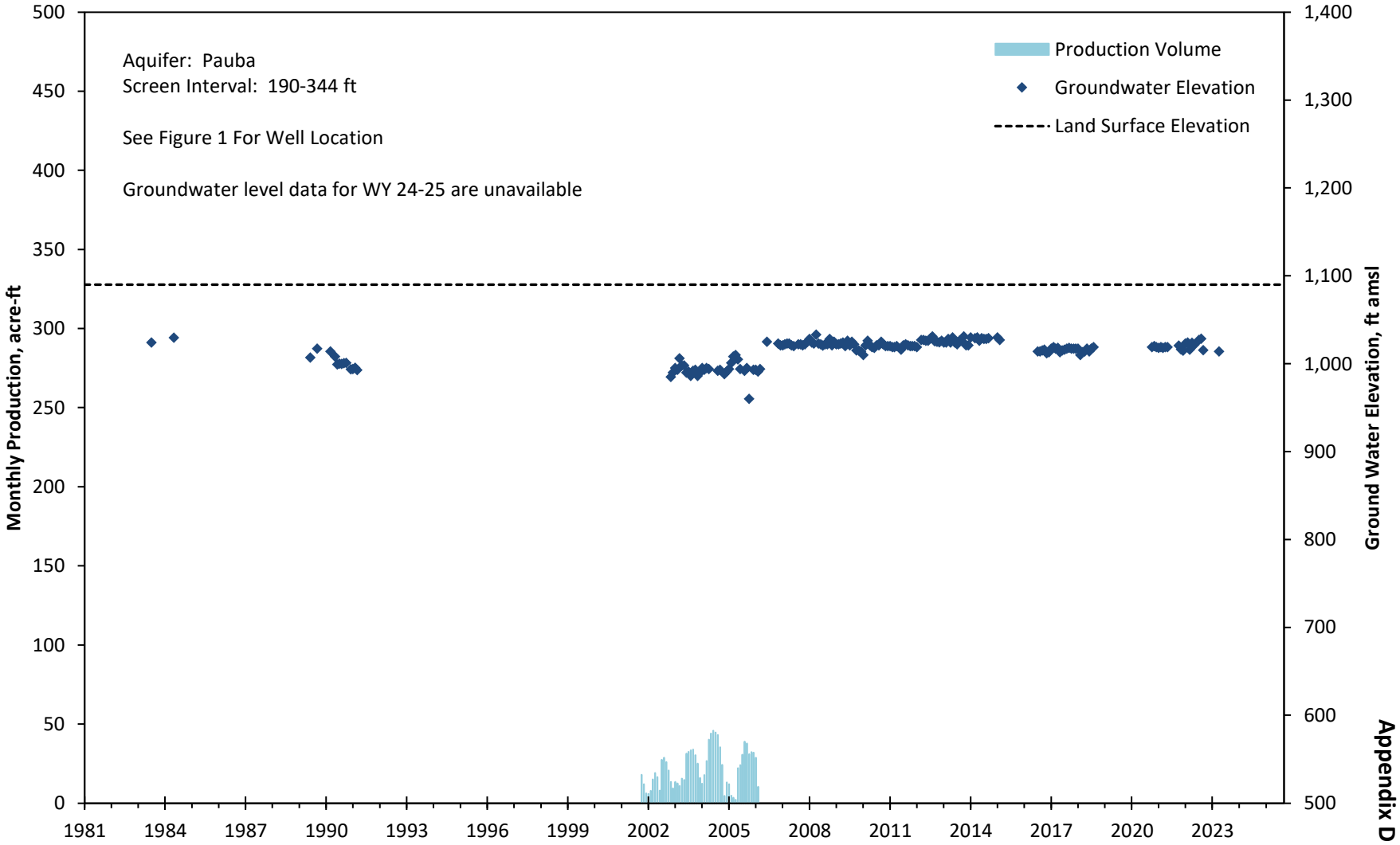
January 1981 to September 2025

CONTENTS

Holiday Well D-1
House Well D-2
Lynch Well D-3
North Well D-4
South Well D-5
Alson Well D-6
New Clay Well D-7

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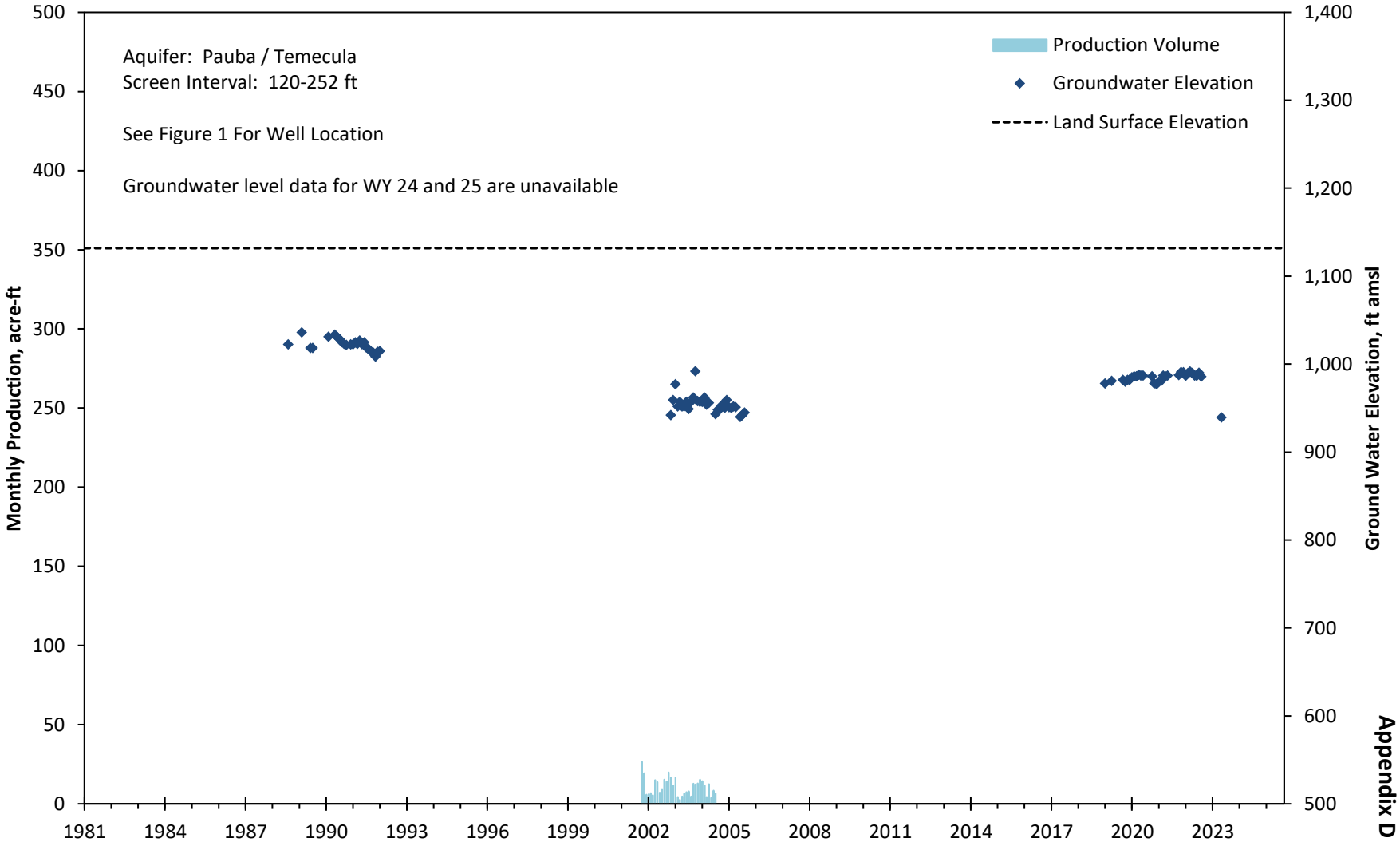
Long-Term Ground Water Levels and Production - WMWD Holiday Well



Appendix D

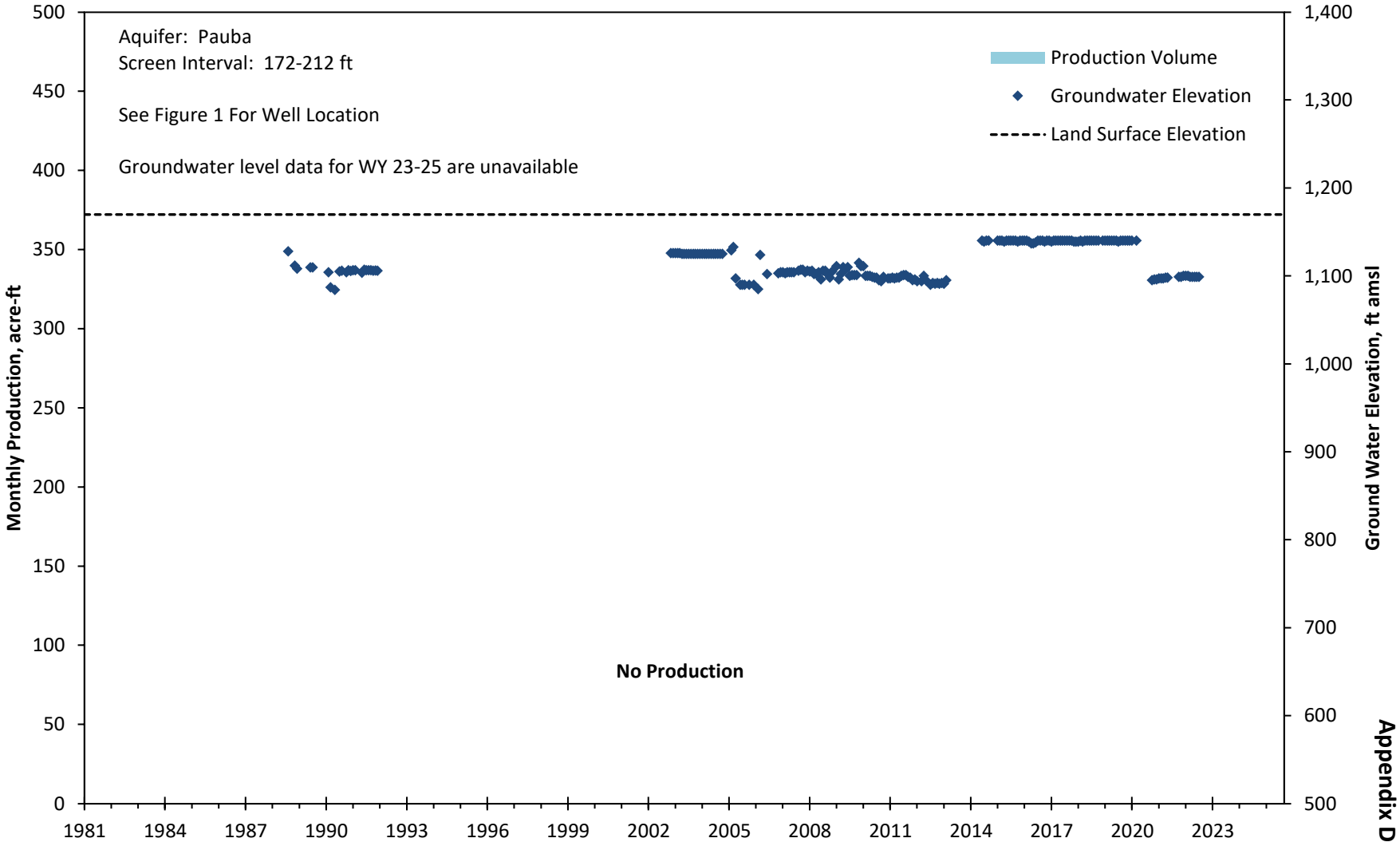
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Long-Term Ground Water Levels and Production - WMWD House Well



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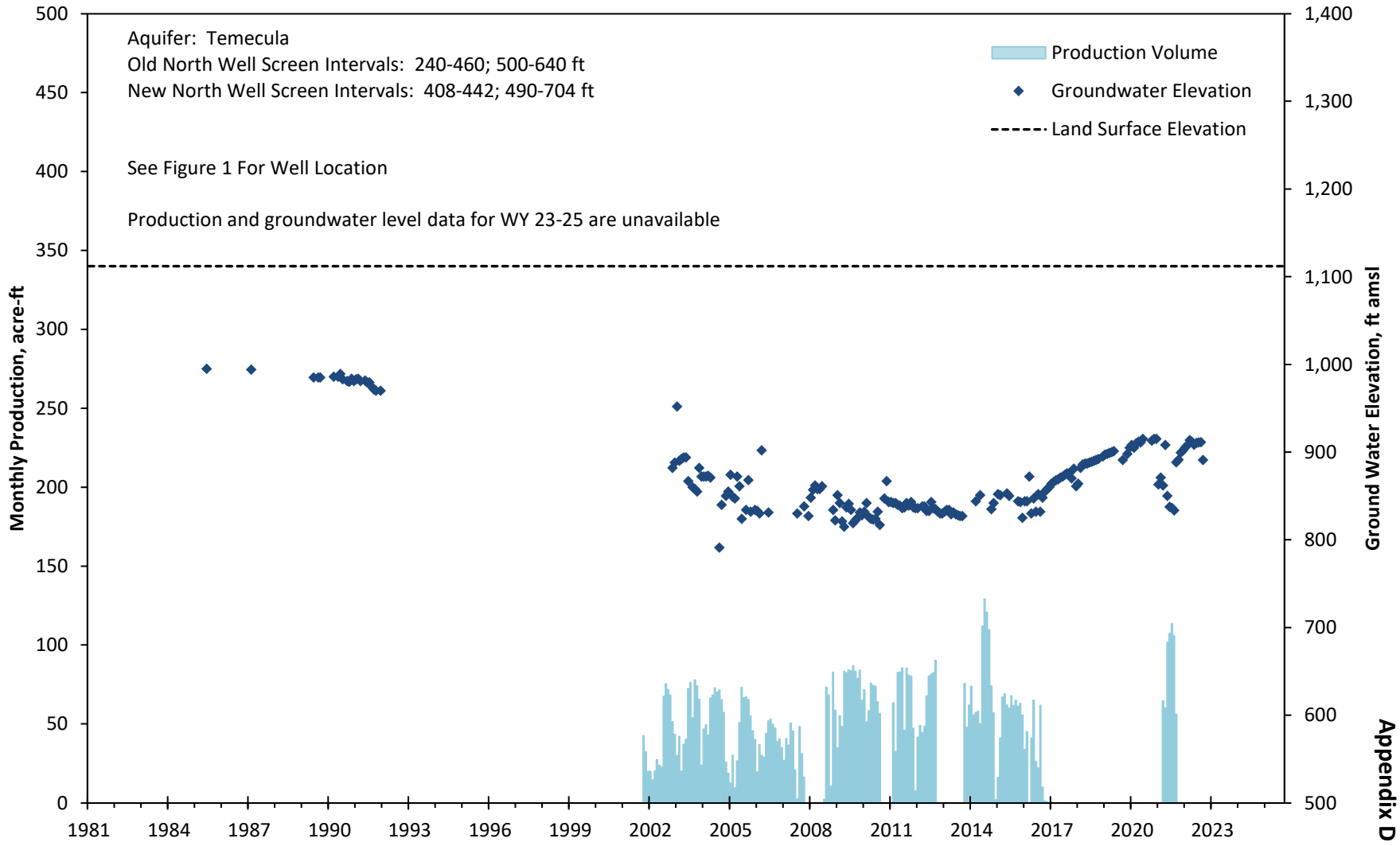
Long-Term Ground Water Levels and Production - WMWD Lynch Well



Appendix D

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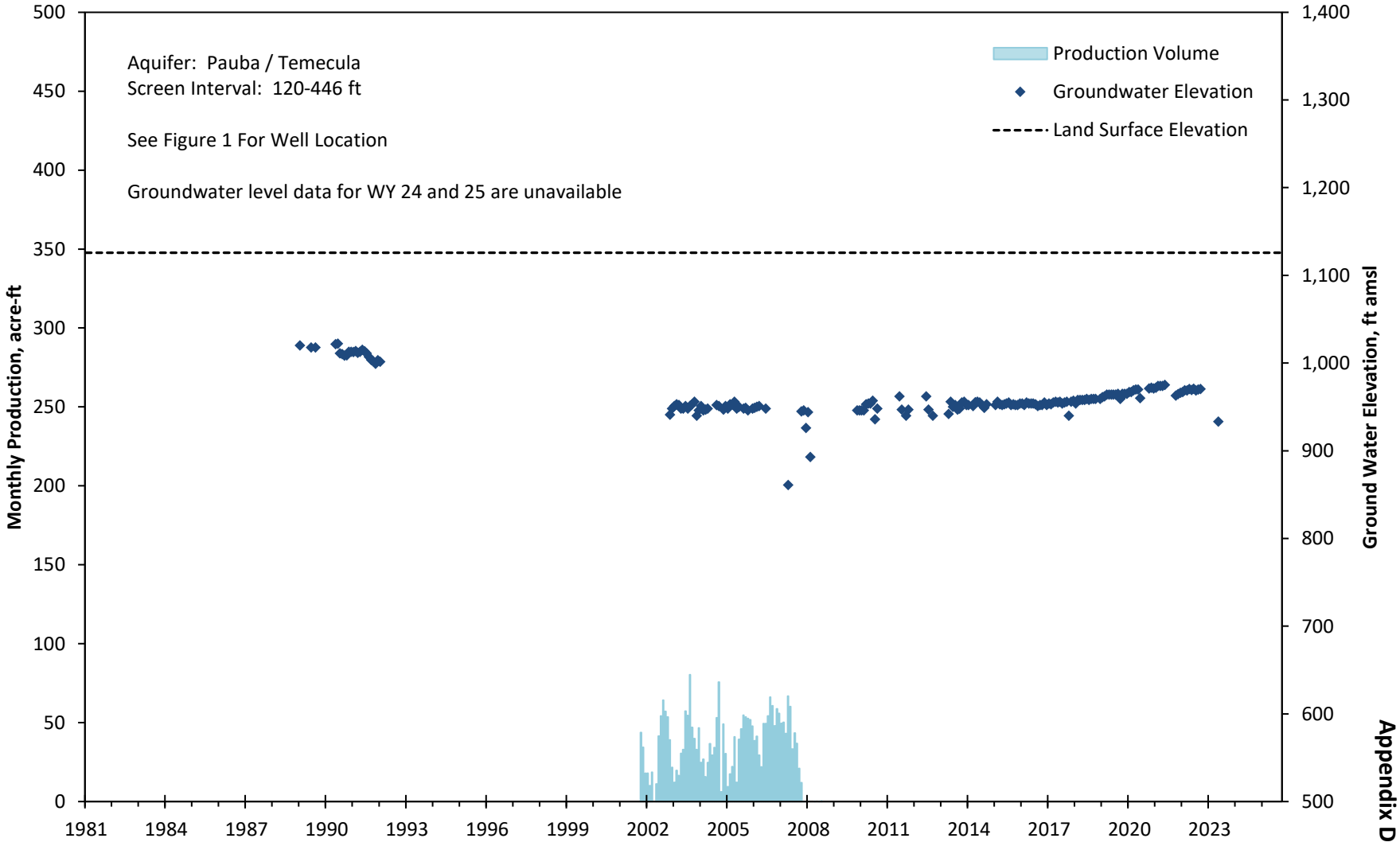
Long-Term Ground Water Levels and Production - WMWD North Well



Appendix D

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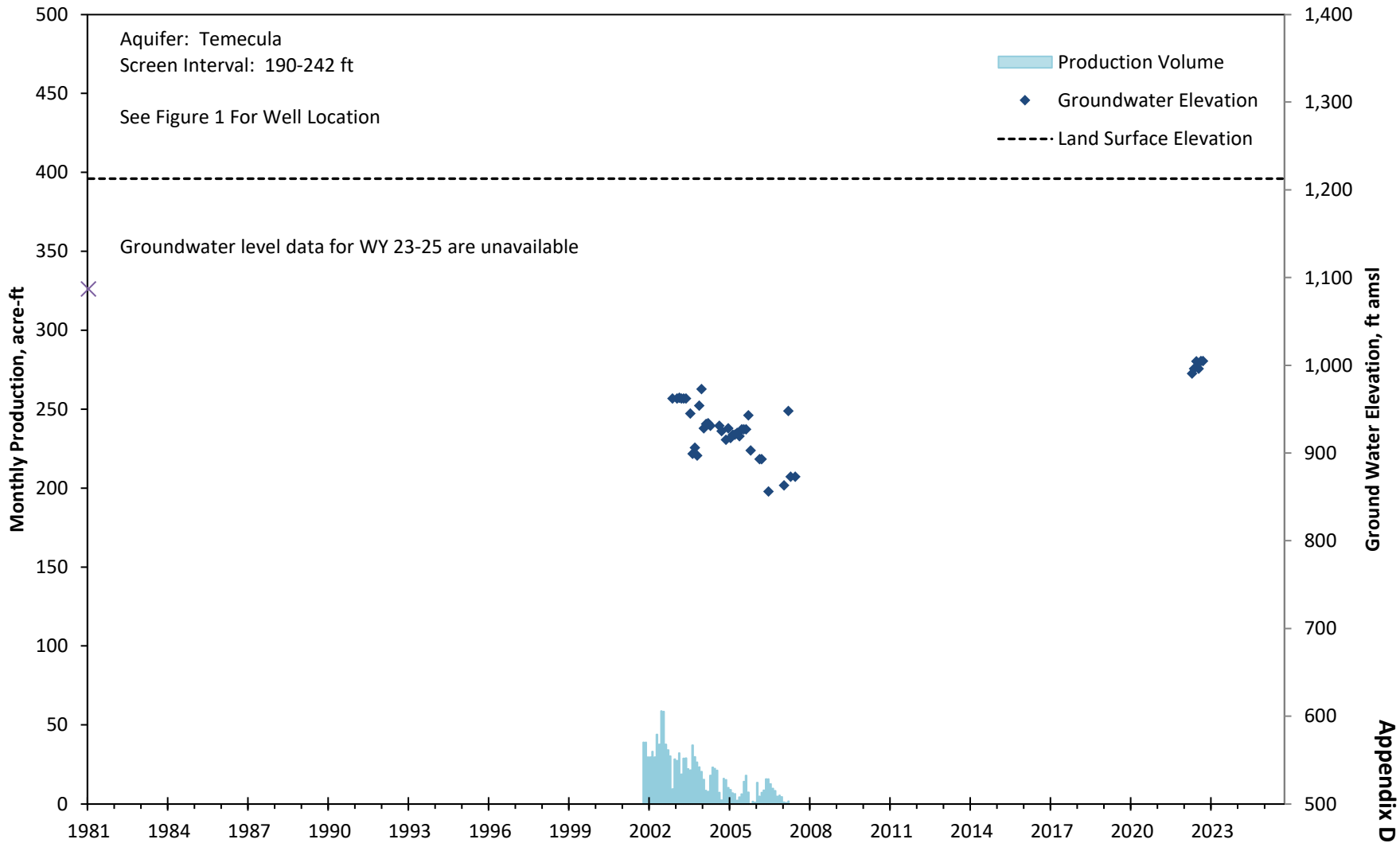
Long-Term Ground Water Levels and Production - WMWD South Well



Appendix D

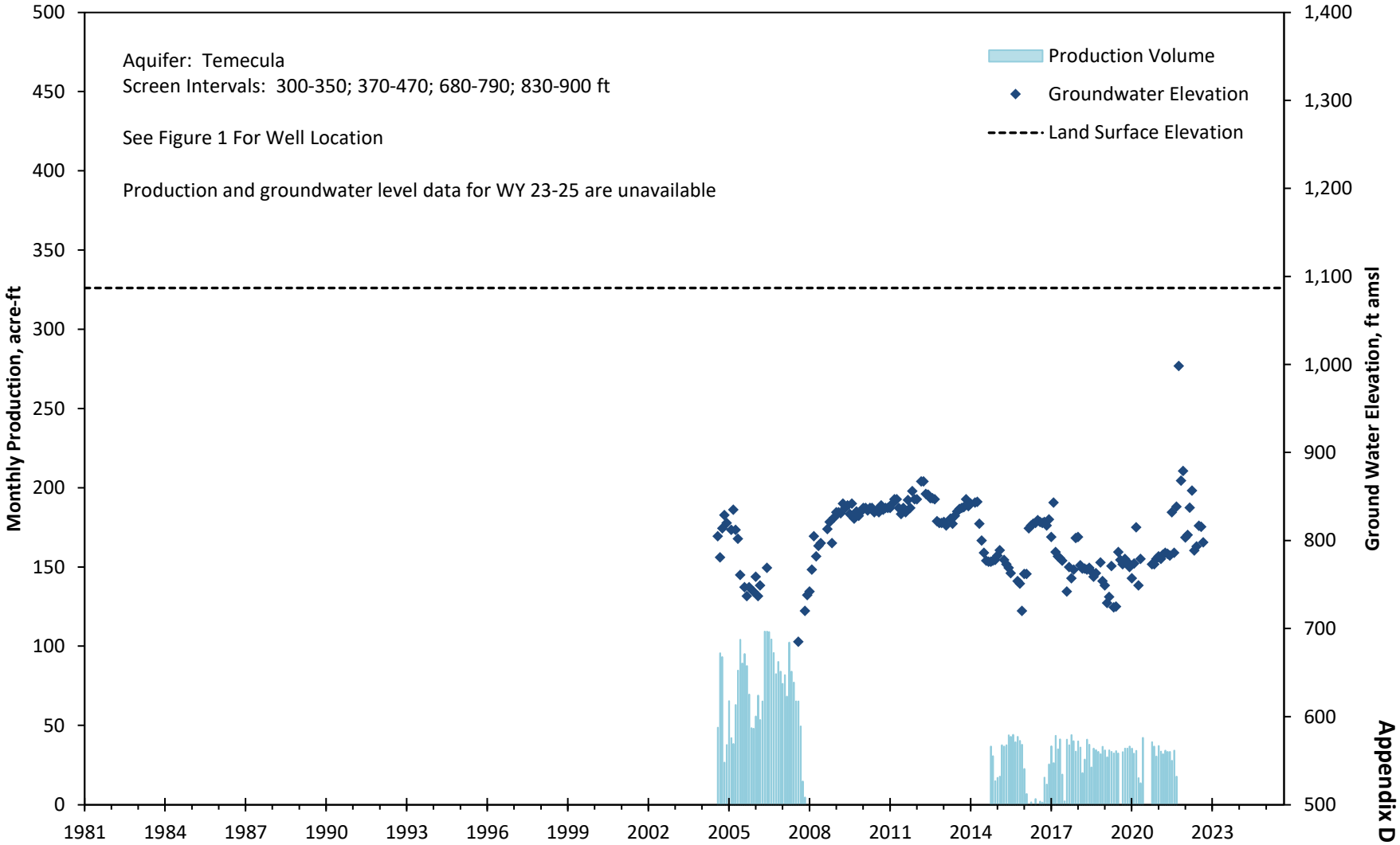
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Long-Term Ground Water Levels and Production - WMWD Alson Well



Appendix D

Long-Term Ground Water Levels and Production - WMWD New Clay Well



GEOSCIENCE

P.O. Box 220, Claremont, CA 91711 | P: 909.451.6650 | F: 909.451.6638 | www.gssiwater.com

John Phil
Ken letter
Andy only
ORIG.
agree.
10CF.

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A CALIFORNIA LIMITED LIABILITY PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

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*A PROFESSIONAL CORPORATION

March 27, 2002

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RCWD

John F. Hennigar
General Manager
Rancho California Water District
P.O. Box 9017
Temecula, CA 92589-9017

Dennis Williams, Ph.D.
Geoscience
P.O. Box 220
Claremont, CA 91711

RE: Cooperative Water Resource Management Agreement

Dear John and Dennis:

I am pleased to enclose for your records a conformed copy of the water management agreement executed on March 26, 2002.

Very truly yours,

Arthur L. Littleworth
of BEST BEST & KRIEGER LLP

ALL/ss
Enc.
cc: C. Michael Cowett, Esq. (w/enc.)

RVPUB\ALL\629746

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C. MICHAEL COWETT, Bar No. 53353
REAGAN L. BRENNEMAN, Bar No. 214135
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DENVER, COLORADO 80202

Attorneys for the United States of America

RECEIVED
BOARD ADMINISTRATION DEPARTMENT
AUG 26 2002
RANCHO CALIFORNIA WATER DISTRICT

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA, Plaintiff, v. FALLBROOK PUBLIC UTILITY DISTRICT, a public service corporation of the State of California, et al., Defendants.	Case No. 1247-SD-T PROOF OF SERVICE BY MAIL

I am a resident of the State of California, over the age of eighteen years, and not a party to this within action. My business address is Best Best & Krieger LLP, 402 West Broadway, 13th Floor, San Diego, California 92101-3542. On August 22, 2002, I served the within document(s):

NOTICE OF ERRATA RE: STIPULATION AND ORDER APPROVING COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

☐ by transmitting via facsimile the document(s) listed above to the fax number(s) set forth below on this date before 5:00 p.m.

☒ by placing the document(s) listed above in a sealed envelope with postage thereon fully prepaid, in the United States mail at San Diego, California addressed as set forth below.

☐ by causing personal delivery by _____ of the document(s) listed above to the person(s) at the address(es) set forth below.

☐ by personally delivering the document(s) listed above to the person(s) at the address(es) set forth below.

Water Litigation Officer
Western Area Counsel Office
Box 555231
Camp Pendleton, CA 92055-5231

Patrick Barry, Esq.
Justice Dept. Land & Natural Resources
Indian Resources Section
P.O. Box 44378
Washington, DC 20026-4378

Andrew F. Walch, Esquire
U.S. Department of Justice/ENRD
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Suite 945
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Pamela Williams, Solicitors Office
U.S. Department of the Interior
Division of Indian Affairs
1849 C Street
Washington, DC 20240

John F. Hennigar, General Manager
Rancho California Water District
P.O. Box 9017
Temecula, CA 92589-9017

I am readily familiar with the firm's practice of collection and processing correspondence for mailing. Under that practice it would be deposited with the U.S. Postal Service on that same day with postage thereon fully prepaid in the ordinary course of business. I am aware that on motion of the party served, service is presumed invalid if postal cancellation date or postage meter date is more than one day after date of deposit for mailing in affidavit.

ARTHUR L. LITTLEWORTH, Bar No. 022041
C. MICHAEL COWETT, Bar No. 53353
REAGAN L. BRENNEMAN, Bar No. 214135
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Attorneys for the United States of America

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA, Plaintiff, v. FALLBROOK PUBLIC UTILITY DISTRICT, a public service corporation of the State of California, et al., Defendants.	Case No. 1247-SD-T **NOTICE OF ERRATA RE:** STIPULATION AND ORDER APPROVING COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

Attached hereto is Exhibit "A" (Cooperative Water Resource Management Agreement) which was inadvertently omitted from the original Stipulation and Order Approving Cooperative Water Resource Management Agreement filed in the above-captioned action on August 19, 2002.

Dated: August 22, 2002

BEST BEST & KRIEGER LLP

By: _____

ARTHUR L. LITTLEWORTH
C. MICHAEL COWETT
REAGAN L. BRENNEMAN
Attorney for Defendant
RANCHO CALIFORNIA WATER DISTRICT

Original Copy

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

between

CAMP PENDLETON

and

RANCHO CALIFORNIA WATER DISTRICT

March, 2002

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

1. Purpose. This Cooperative Water Resources Management Agreement ("Agreement") is between the United States, on behalf of Camp Pendleton (sometimes "Camp Pendleton"), and the Rancho California Water District, ("District"), and is effective upon approval of the Court. Certain terms used in this Agreement are defined in Exhibit "A" hereto, including a map of the Santa Margarita River watershed. At the present time, two Judgments affect the rights of the parties with respect to water supplies from the Santa Margarita River watershed. The first is a Stipulated Judgment in the case of Rancho Santa Margarita v. Vail, San Diego Superior Court Action No. 42850 ("1940 Judgment"). The second is the Judgment in the case of United States v. Fallbrook Public Utility District, Civ. No. 1247, S.D. Cal. ("Fallbrook Case"). However, these Judgments do not fully meet the needs of the parties for effective water management under present conditions. The meanings of certain provisions of the 1940 Judgment are also in dispute. The parties, therefore, propose to manage these water resources in a practical way that will meet their needs, consistent with the essential rights and obligations of the two Judgments, while avoiding potential conflicts over disputed provisions.

2. Term. Unless sooner terminated because of an uncured default as set forth in Section 15 below, this Agreement shall remain in effect for a minimum of 10 years

from its effective date, and until either party exercises its right to terminate as set forth in Section 16 below.

3. Incorporation in Fallbrook Case and Continuing Jurisdiction. The Agreement will be submitted to the Court for approval and incorporated by stipulation into the Fallbrook Case, pursuant to the Court's continuing jurisdiction therein, and will be administered by the Watermaster appointed by the Federal District Court, Southern District of California, by order dated March 13, 1989, or subsequent order. The Court shall retain continuing jurisdiction to make such further orders as may be necessary to interpret or enforce this Agreement, provided that the Court shall not have the power to modify the terms of this Agreement or the 1940 Judgment. If either party believes there is a substantial change of circumstances, the parties shall attempt to reach agreement as may be appropriate in light of the changed circumstances, or shall engage in mediation if agreement is not reached.

4. 1940 Judgment. The United States is the successor in interest to the plaintiff Rancho Santa Margarita in the 1940 Judgment. The Rancho California Water District is a successor in interest to the defendants in the 1940 Judgment, and has certain rights and obligations under a 1978 Agreement between KACOR Realty and Rancho California Water District relative to Vail Lake. Both parties have certain rights and entitlements under the 1940 Judgment and are obligated to comply therewith. Without waiving their rights and entitlements under the 1940 Judgment, the parties

intend to forbear enforcing them for so long as this Agreement is in effect and being complied with. The parties realize that certain provisions of this Agreement differ from the 1940 Judgment. For example, the measurement of the flows required to be maintained under this Agreement will be accomplished at USGS Gage ID No. 11044000 on the Santa Margarita River near Temecula ("the Gorge"), and those guaranteed flows to Camp Pendleton are in terms of usable flows, including habitat maintenance flows, instead of total flows. Without waiving any of their rights and entitlements under the 1940 Judgment, the parties agree that, to the extent provisions of this Agreement are inconsistent with the 1940 Judgment, the provisions of this Agreement shall control for so long as this Agreement is in effect and being complied with. The parties agree further that, so long as this Agreement is in effect and is being complied with, neither party will undertake any proceeding with respect to the 1940 Judgment against the other, either judicially or administratively. Should either party fail to comply with this Agreement, or should it expire or be terminated, the parties preserve their respective rights to enforce the 1940 Judgment against each other, as each interprets it, and the provisions of this Agreement shall not be used to supply meaning to the 1940 Judgment.

5. Guaranteed Flows at the Gorge.

(a) The parties have developed a Groundwater Model, which indicates that the simulated total natural streamflow at the Gorge over the period 1935-1998 would have averaged 30.35 cfs, without diversions or pumping. For the purpose of establishing flow requirements, the daily natural streamflow at the Gorge was simulated using the Hydrologic Simulation Program Fortran (HSPF) model developed by Camp Pendleton and reviewed by both parties. Both models are more fully described in Exhibit "B" hereto. Flows at the Gorge, as set forth in the table on page 5, are based on two-thirds of the median natural flow during very wet, above normal, below normal, and critically dry conditions. Daily flow values for very wet and critically dry conditions are based on the daily median flows for the periods 1937 to 1946 and 1957 to 1966, respectively. Above normal flows are based on the mean of the median of very wet flows and the median of all flows for the period 1931-1996. Similarly, below normal flows are based on the mean of the median of critically dry flows and the median of all flows for the period 1931-1996. This methodology eliminates the large storm flows from the calculation of required flows for Camp Pendleton (two-thirds of natural flow), and results in average annual flows ranging from 3.6 cfs to 15.6 cfs, with a median flow of 8.8 cfs for the period 1931-1996. The results of the modeling efforts and the above calculations are shown on the following table:

	Critically Dry Flow	Below Normal Flow	Above Normal Flow	Very Wet Flow
Month	cfs	cfs	cfs	cfs
Jan - April	4.5	8.0	17.8	24.1
May	3.8	5.7	11.7	15.7
June	3.3	4.9	9.4	12.2
July	3.0	4.3	7.8	9.7
August	3.0	4.4	7.6	9.2
September	3.0	4.1	7.4	9.4
October	3.0	3.9	7.7	10.1
November	3.0	4.5	8.8	11.5
December	3.3	5.3	10.4	13.5

The hydrologic conditions described in the table above are derived from a hydrologic index combining the October through April natural streamflow at the Murrieta Creek gage, and the October through April natural streamflow at Vail Lake. Natural flow at Murrieta Creek is calculated using the rainfall/run-off relationship between rainfall at Wildomar and the HSPF natural flow at Murrieta Creek. Natural flow at Vail Lake is calculated using the run-off correlation between Aguanga streamflow and inflow to Vail Lake during the period water years 1958 to 1996.

On May 1st of each year the October through April rainfall at Wildomar is used to estimate natural flow at Murrieta, and the October through April measured

streamflow at Aguanga is used to estimate natural flow at Vail Lake. A simple computer spreadsheet, maintained and operated by the Technical Advisory Committee ("TAC"), adjusts for antecedent conditions and calculates the hydrologic index based on these input parameters. The computer spreadsheet is more fully described in Exhibit "C" hereto. Once the hydrologic condition is determined, the above table is then used to prescribe the flows at the Gorge.

Recognizing the seasonal variations in such flows that naturally occur under different hydrologic conditions, it is agreed that the District hereby guarantees winter and monthly minimum average flows at the Gorge as hereinafter provided. Full implementation of such guarantee requires the construction of certain facilities, which the District agrees to construct as expeditiously as possible. Any make-up obligations in excess of 3.0 cfs shall commence upon completion of such facilities, but in no event later than June 1, 2002, unless precluded by law.

(b) The winter period includes the months of January through April. For the winter period, minimum daily flow requirements are: 11.5 cfs for very wet and above normal conditions; 8.0 cfs for below normal conditions; and 4.5 cfs for critically dry conditions. Notwithstanding the foregoing, in the first winter period following the effective date of this Agreement, the minimum daily flow requirement is 11.5 cfs, calculated on a 10 day running average. The District shall provide whatever make-up water is needed to meet this requirement. On May 1st immediately following the first

winter period, and on each May 1st thereafter, the hydrologic condition for the immediately preceding October-April period shall be determined. Such condition, and the daily flow requirements set forth in this Section 5(b), shall be used to determine the actual flow requirement for the prior winter period, and whether this requirement was exceeded. In providing minimum daily flows of 11.5 cfs during the first winter period, if the District has provided make-up water in excess of its actual requirement, the District shall be entitled to a credit for such excess. The quantity of the excess flow shall be converted to a cfs equivalent, and applied during the following winter periods to reduce the 11.5 cfs requirement. In all years following the first winter period, the same procedure shall be followed, provided that the minimum daily flow requirement for each winter period shall be 11.5 cfs, less any credit unused in a previous year, and less any credit established by the May 1st accounting of the prior year.

(c) The non-winter period includes the remaining months of May through December. Minimum daily flow requirements, calculated on a 10 day running average, for the non-winter months are provided by the above table, based upon the particular hydrologic condition established on May 1st for the prior October-April period; provided that the 10 day average shall begin on the 11th day of each month. The District shall provide whatever make-up water is required to meet these monthly requirements.

(d) Notwithstanding any provision to the contrary, the District shall not be required to provide more than the equivalent of 11.5 cfs make-up water for any month.

(e) When the District is required under this Section to provide make-up water in any calendar year in excess of 4000 acre feet, measured at the Gorge, it shall be entitled to a credit for the excess, taking into account transmission losses, to be applied during the following two winter periods. Any deliveries pursuant to Section 17 are outside of, and in addition to, this subsection. The United States shall have the option of eliminating the District's credit in this subsection by the United States, or its designee, paying the District a cash amount equal to The Metropolitan Water District of Southern California's then current price for untreated water.

(f) Notwithstanding any provision to the contrary, the District guarantees that flows, based upon a 10 day running average, shall at no time be less than 3.0 cfs, and this obligation is independent of the construction of any facilities.

(g) Camp Pendleton, with the cooperation of the District, shall institute a monitoring program to assess the impacts of the parties' operations under this Agreement on the water supply, water quality and riparian habitat within Camp Pendleton. If adverse impacts are observed or if notice of such impacts is provided to Camp Pendleton by the Environmental Protection Agency, Fish and Wildlife Service, or other monitoring agencies, the District will cooperate with Camp Pendleton to assess operations under this Agreement to determine whether and what changes may be

needed to remedy such impacts. The District agrees to participate in good faith in appropriate watershed protection or watershed planning activities aimed at preserving water quality, enhancing watershed recharge, and encouraging watershed conservation within the Santa Margarita River watershed.

6. Makeup Water. Compliance with the requirements of Section 5 shall be based upon actual flow measurements as recorded by the USGS gage at the Gorge. Any losses of makeup water incurred between the point of discharge by the District and the Gorge shall be borne by the District, and shall not diminish the United States' entitlement, as measured at the Gorge. Makeup water which the District may be required to release at the Gorge in order to comply with the requirements of Section 5 may be supplied at its option from: (1) its wells upstream of the Gorge; (2) flows from its Live Stream Discharge Project subject to the provisions of the NPDES Permit and Section 9 below; (3) deliveries from its domestic water system; (4) deliveries of imported water from The Metropolitan Water District of Southern California; (5) or Vail Reservoir. With the consent of Camp Pendleton, the District may substitute treated water by exchange or direct delivery to Camp Pendleton for flow at the Gorge. Makeup water that the District releases to the stream shall meet all requirements of the California Water Quality Control Board, San Diego Region, and shall not cause a violation of any rule, regulation, standard or objective established by federal, state, or

local enforcement agencies, including but not limited to the federal and state Safe Drinking Water Acts.

7. Safe Yield Operation.

(a) The District agrees to manage its pumping of the "natural supply of groundwater" in the area upstream of the Gorge on a "safe yield" basis. The term "natural supply of groundwater" as it is used herein includes all return flows that recharge the groundwater supply, including return flows from imported and reclaimed water. "Safe yield" recognizes that groundwater levels will fluctuate during hydrologic cycles, and that amounts of pumping may also vary from year to year, but that the District's pumping over time will not cause damage to the aquifers. The District's demands in excess of safe yield will be met from imported or reclaimed water supplies.

(b) In addition to its pumping of the natural supply, the District shall be entitled to pump such amounts of direct import water recharge and direct reclaimed water recharge as may have been percolated and stored underground by way of the VDC operations or other direct recharge facilities.

(c) So long as the quantity of groundwater extracted by the District, including makeup and emergency water provided hereunder, does not exceed safe yield as set forth above, and subject to Section 19 of this Agreement, there are no restrictions on the number of wells which the District may operate, where they may be located, the

aquifers from which they may draw water, or the amounts of groundwater which may be pumped from each well.

(d) The District, with the cooperation of Camp Pendleton, shall install and maintain a multi-level monitoring network to obtain additional data which, when reviewed with the data from the surface monitoring system, may be used to assess safe-yield operations. The District, in consultation with Camp Pendleton, shall update the Groundwater Model from time to time but in no event less frequently than every five years. The Groundwater Model will be updated with current data and such other improvements as may be appropriate, and shall be utilized to monitor conditions, and to indicate whether adjustments to the District's pumping are required to operate within the safe yield of the basin.

8. Vail Dam and Reservoir.

(a) The District holds Permit 7032 from the State Water Resources Control Board for the construction and operation of Vail Dam and Reservoir. The Reservoir will be operated in accordance with such permit, as amended by the District's current application on file with the Board. The District's operations of the Reservoir are also constrained by its agreement with KACOR Realty, Inc., dated April 28, 1978, with respect to recreation levels in the Reservoir. The United States is not a party to this KACOR agreement and disputes the applicability of the Vail Lake recreational pool limit to the United States. The District agrees, in accord with the Mahlon Vail

letter dated October 6, 1947, that its yield from the Reservoir and all losses including net evaporation are chargeable against its one-third share under the 1940 Judgment. Moreover, the District agrees that the pumping of water that has been released from the Reservoir and has percolated underground downstream shall be a part of, and not an addition to, the natural supply and safe yield of the basin.

(b) The United States on behalf of Camp Pendleton only will withdraw without prejudice the protest filed with the State Water Resources Control Board to the District's Permit 7032 change petition, provided that if this Agreement should be terminated, the United States shall have the right to reinstitute its protest, and any Permit amendments shall be conditioned upon such right. The United States will also seek dismissal of the case entitled United States of America v. Rancho California Water District, Riverside County Superior Court, Case No. EO 14837, Court of Appeal, Fourth Judicial District, Case No. 229096, each side to bear its own costs and attorneys fees. Except as allowed under Permit 7032, or any license confirming such rights, the District agrees that it will not seek rights from the State Water Resources Control Board, or otherwise, to store natural surface water flows of the Santa Margarita River or its tributaries.

(c) On December 2, 1999 Vail Lake USA, LLC, as a claimed successor to KACOR Realty, Inc. under the April 28, 1978 Agreement with the District, gave notice to the District alleging that the District had failed to perform its obligations under

the Agreement; that Vail Lake USA, LLC was exercising its claimed right of reversion; and that it intended to retake possession of Vail Dam and Reservoir, among other properties. The District disputes this claim, and believes that it is without merit. However, the District's rights and obligations under this Agreement stem in part from the acquisition of Vail Dam and Reservoir pursuant to the April 28, 1978 Agreement, and should Vail Lake USA, LLC be successful in its claim, it may be necessary to modify this Agreement section accordingly. The District agrees to oppose, and the United States shall take such action as it deems appropriate, any effort by Vail Lake USA, LLC, or its successor, through amendment of Permit 7032 or otherwise, to export any waters subject to such permit for use outside of the Santa Margarita River watershed, or otherwise to interfere with the historic use of such stored waters.

9. Live Stream Discharge Project. Subject to the provisions of the Four Party Agreement, or any amendments thereto, flows discharged to the stream by the District from its Santa Rosa Water Reclamation Facility pursuant to and in compliance with Order No. 96-54, NPDES Permit No. CA0108821, or any amendments thereto or extension thereof, shall be considered part of the flows at the Gorge to which the United States is entitled, and may be used to provide any makeup water required to meet such entitlements.

10. Monitoring. In addition to the monitoring programs required under Section 5(g) hereunder, the Watermaster appointed in the Fallbrook Case shall measure

and monitor both water flows and water quality at the Gorge, and shall incorporate into his reports the results of all monitoring programs provided for in this Agreement.

11. Use of Flows. The flows at the Gorge guaranteed herein, and any make up obligation by the District, shall be subject to the reasonable and beneficial use requirements of federal and California law. It is expressly recognized that the minimum flows set forth in Section 5 may be used to meet the ecological habitat maintenance requirements for the riparian corridor below the Gorge, and that such use constitutes a reasonable and beneficial use.

12. Upstream Pumping by Others. To the extent that it is legally capable, the District shall be responsible for controlling, if necessary, any pumping or diversions by non-federal entities within its boundaries. Except for any actions undertaken by any Indian tribe, band or community or any federal agency, and further excepting any actions affecting federal lands or the trust resources of any Indian tribe, band or community located within the Santa Margarita River watershed, the parties agree to act jointly, by judicial means or otherwise, to prevent any pumping or diversion upstream of the Gorge by others located outside of the boundaries of the District from adversely affecting flows at the Gorge. In any event, none of the pumping upstream of the Gorge shall affect the District's obligations set forth in Sections 5 and 6.

13. Annual Report. By March 31 of each year, the Watermaster shall prepare an annual report for filing in the Fallbrook case on the performance of this Agreement

during the prior water year. He shall consult with the TAC on the contents of such report.

14. Technical Advisory Committee. The TAC, which shall continue to include the Watermaster, will serve as a forum for discussion and cooperation between the parties as to the performance of this Agreement. The TAC will conduct the reviews described in Sections 5 and 7, and may also, with the approval of the parties, undertake such studies as may be useful in implementing the Agreement. Such studies may include, but are not limited to, updating and reviewing the performance of the Groundwater Model and the HSPF Model; evaluating safe yield; calculating transmission losses; groundwater conditions and any changes in groundwater storage; comparing actual data with the assumptions used in negotiating this Agreement; identifying any substantially changed hydrologic conditions within the watershed; and determining losses of any groundwater stored for the account of Camp Pendleton.

15. Default. Should either party fail to perform any portion of this Agreement, or otherwise breach any of its respective obligations under this Agreement, and upon notice of such breach or failure to perform, the party which is alleged to be in default shall cure its default within thirty days of receipt of notice, or within a reasonable time in the event more time is required. In the event of a dispute over the default, either party may apply to the Federal Court in the Fallbrook case, under its continuing jurisdiction, to obtain appropriate judicial relief. During the pendency of the court

proceedings, the party alleged to be in default shall continue to cure the default, unless otherwise directed by the court. If the alleged default has been totally or partially cured, but an actual default is not finally established by the court, the curing party shall be entitled to appropriate relief to compensate it for the expense of its total or partial cure. If the default is not cured or excused by the court, the other party shall be entitled to terminate the Agreement without further notice, notwithstanding any provision in Section 16. Once terminated, the covenant to forbear from enforcing rights under the 1940 Judgment as set forth in Section 4 above will no longer apply and either party may then undertake judicial or administrative proceedings with respect to the 1940 Judgment.

16. Termination. In addition to the right to terminate upon an uncured default as set forth in the preceding Section, either party shall have the right to terminate this Agreement with or without cause upon two years written notice; provided, however, that in no event shall the right to terminate under this Section be exercised prior to ten years after the effective date of this Agreement, including the two years notice. Once terminated, the covenant to forbear from enforcing rights under the 1940 Judgment as set forth in Section 4 above will no longer apply, and either party may then undertake judicial or administrative proceedings with respect to the 1940 Judgment.

17. Emergency Supplies. In the event that the Commanding General of Camp Pendleton declares a water supply emergency based upon a drought affecting the water

supply to Camp Pendleton and its riparian habitat corridor, or upon mobilization demands requiring additional potable water supplies for Camp Pendleton, and upon agreement of the parties or approval of the Court, the District will: (1) work with Camp Pendleton to acquire untreated water from the San Diego Aqueduct of The Metropolitan Water District of Southern California, and discharging such water into the Santa Margarita River or its tributaries; (2) deliver water in the amount of any groundwater held by Camp Pendleton in the basin upstream of the Gorge into the Santa Margarita River at the Gorge; or (3) assist in supplying treated water directly or by exchange to Camp Pendleton. Camp Pendleton may acquire rights to such groundwater above the Gorge by foregoing its right to makeup water from the District; or to the extent that the District's actual flow maintenance requirements are less than the flows in the table in Section 5; provided: (1) that Camp Pendleton's rights to such groundwater in storage shall not exceed 5000 acre-feet at any one time; and provided further: (2) that the District's obligation to deliver stored groundwater shall not exceed 2200 acre-feet per year over any required makeup obligation which the District may have, and in no event at a rate in excess of 11.5 cfs. Any such groundwater held in the basin for the account of Camp Pendleton shall be subject to a proportionate share of losses. All governmental approvals required to discharge either Metropolitan Water District water or stored groundwater into the river, pursuant to this Section, shall be the responsibility of Camp Pendleton.

18. Use of River Channel. With respect to the flow requirements under Section 5 and the emergency surplus delivered to the Gorge under Section 17, it is the Parties' express intent that the natural channel of the Santa Margarita River serve as a conduit for delivery of those flows to Camp Pendleton.

19. Federal and Indian Water Rights. This Agreement is entered into by the United States solely on behalf of Camp Pendleton and not on behalf of any other federal agency or in any other capacity, including, but not limited to, its capacity as trustee for any Indian tribe, band or community. Nothing in this Agreement may affect the water quality, water rights or the water rights claims of any Indian tribe, band or community or federal agency located within the Santa Margarita River watershed, or of the United States acting on their behalf.

20. Representations and Warranties. The parties to this Agreement represent and warrant as follows:

(a) The parties affirm that the representatives executing the Agreement are empowered to do so and thereby bind the respective parties, and that there is no other condition to be satisfied or approval to be secured from any governmental or quasi-governmental agency or body in order to execute this Agreement;

(b) Each party affirms its present competence to enter into the settlement provided for in this Agreement, with respect to the advisability of executing this Agreement, and with respect to its meaning;

(c) Each party affirms that, as of the effective date of this Agreement, each has not previously assigned or transferred in any manner, or purported to have assigned or transferred in any manner, any of the claims set forth in this Agreement;

(d) No party is relying upon any statement, representation or promise of any other party or any officer, director, agent, partner, employee, consultant, representative or attorney of or for any other party in executing this Agreement or in making the settlement provided for, except as expressly stated in this Agreement and admissible to interpret the Agreement.

21. Successors-in-Interest and Assigns. Subject to any restriction on transferability contained in this Agreement, this Agreement shall be binding upon and shall inure to the benefit of the successors-in-interest and assigns of each party to this Agreement. Nothing in this Section shall create any rights enforceable by any person not a party to this Agreement, except for the rights of the successors-in-interest and assigns of each party to this Agreement, unless such rights are expressly granted in this Agreement to other specifically identified persons.

22. Integration. This Agreement is an integrated agreement and constitutes the entire Agreement between the parties and supersedes all prior and contemporaneous oral and written agreements and discussions.

23. Modification in Writing. This Agreement may be modified only by a writing executed by the parties to this Agreement against whom enforcement of such modification is sought.

24. Drafting Ambiguities. Each party to this Agreement and its counsel have reviewed and revised this Agreement. The rule of construction that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement or of any amendments or exhibits to this Agreement.

25. Partial Invalidity. Each provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law. If any provision of this Agreement or the application of such provision to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement or the application of such provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected by such invalidity or unenforceability, unless such provision or such application of such provision is essential to this Agreement.

26. Waiver. Any waiver of a default under this Agreement must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement. No delay or omission in he exercise of any right or remedy shall impair such right or remedy or be construed as a waiver. A consent to or approval of any act shall not be deemed to waive or render unnecessary consent to or approval of any other or subsequent act.

27. Further Assurances. Each party to this Agreement shall execute all instruments and documents and take all actions as may be reasonably required to effectuate this Agreement.

28. Time of Essence. Time and strict punctual performance are of the essence with respect to each provision of this Agreement.

29. Headings. The headings of the Sections of this Agreement have been included only for convenience, and shall not be deemed in any manner to modify or limit any of the provisions of this Agreement, or be used in any manner in the interpretation of this Agreement.

30. Effectiveness. This Agreement shall become effective when it has been executed by all of the parties, and approved by the Court as provided in Section 3.

31. Anti-Deficiency Act. The parties to this Agreement recognize and acknowledge that any payment obligations of the United States on behalf of Camp Pendleton in satisfaction of this Agreement can only be paid from appropriated funds legally available for such purpose. Nothing in this agreement shall be interpreted as a commitment or requirement that the United States obligate funds or pay costs in contravention of Anti-Deficiency Act, 31 USC §§ 1301, 1341, or any other applicable provision of law.

32. Notice. All notices or other communications required or permitted to be given to a party to this Agreement shall be in writing and shall be personally delivered,

sent by registered or certified mail, postage pre-paid, return receipt requested, or sent by an overnight express courier service that provides written confirmation of delivery to such party at the following respective addresses:

UNITED STATES:	Assistant Attorney General United States Department of Justice Environmental and Natural Resources Division Washington, DC
WITH A COPY TO:	Director, Office of Water Resources Box 555013, MCB Camp Pendleton, CA 92055-5013
DISTRICT:	General Manager Rancho California Water District P.O. Box 9017 Temecula, CA 92589-90017
WITH A COPY TO:	General Counsel Rancho California Water District P.O. Box 9017 Temecula, CA 92589-9017

UNITED STATES OF AMERICA

Date: 3/26/02

By: _____

Andrew F. Walch, Senior Counsel
United States Department of Justice
Environment and Natural
Resources Division
General Litigation Section
999 18th Street, Suite 945
Denver, CO 80202

Date: 3/26/02

By: _____

_____

_____

United States Marine Corps
Camp Pendleton, California

RANCHO CALIFORNIA WATER DISTRICT

Date: 3-26-02

By: Lysa D. Herman
President

ATTEST:

Linda M. Fugro
Secretary

APPROVED AS TO FORM

BEST BEST & KRIEGER LLP

Arthur L. Littleworth

C. Michael Cowett

EXHIBIT A

DEFINITIONS AND MAP

EXHIBIT A

DEFINITIONS

Basin	The groundwater basin consists of the Temecula, Pauba, and Younger Alluvial aquifers. The younger alluvial aquifer is located along the river bottoms and is generally considered the most permeable. The Pauba and Temecula aquifers underlie the Younger Alluvium and are generally less permeable.
Direct Recharge Facilities	Direct recharge facilities presently include the Valle De Caballos located in the upper part of the Pauba Valley. Natural run-off from Temecula Creek is released from Vail Lake and imported waters are diverted to the VDC to recharge the aquifers used for groundwater production from the groundwater system.
Gorge	The Gorge is located at the head of the Santa Margarita River at the confluence of Murrieta and Temecula Creeks. The USGS presently operates streamflow gage 11044000 at the Gorge with a period of record beginning in 1923.
Groundwater Model	The groundwater model simulates surface and groundwater movement in the Younger Alluvium, Pauba, and Temecula aquifers. The groundwater model uses the USGS's finite difference code MODFLOW and consists of 102 rows, 127 columns, and three layers. The transient calibration period extends from 1935 to 1999 using quarterly stress periods. The groundwater model was developed from 1995 to 1999 by the District with continuous involvement by all members of the TAC.
Groundwater Supply	Groundwater supply includes the natural supply and that portion of imported water, reclaimed water, and other waters that directly or indirectly recharge the three aquifers.
Groundwater System	The Groundwater system is described by the groundwater model and consists of all aquifers located above the Gorge. Furthermore, recharge from direct precipitation, recharge from surface water, discharge to surface water, subsurface recharge, and movement of water between aquifers also pertain to the groundwater system.

HSPF Surface Water Model	The Hydrologic Simulation Program Fortran (HSPF) surface water model was developed to simulate natural flow at the Gorge. The model was calibrated using the period water year 1931 through 1936 as natural flow conditions in the upper basin. The model was developed in 1999 by Camp Pendleton and reviewed by the TAC.
Imported Water	Water the source of which is outside the Santa Margarita River watershed.
Natural Supply	The natural supply of water in the upper basin is defined by the amount of water that is recharged to the groundwater system from direct precipitation, surface flow, releases from Vail Lake, subsurface inflow, and return flow from imported or reclaimed water.
TAC	The Technical Advisory Committee (TAC) consists of representatives from the Rancho California Water District, Camp Pendleton, the United States Geological Survey, and the Watermaster.
VDC	The Valle De Caballos (VDC) is a direct recharge facility located in the upper portion of Pauba Valley. Both natural run-off and imported water are applied at these facilities in order to recharge the groundwater system.
Year	Unless otherwise indicated, year refers to the water year running from October 1st through September 30th of the following year.

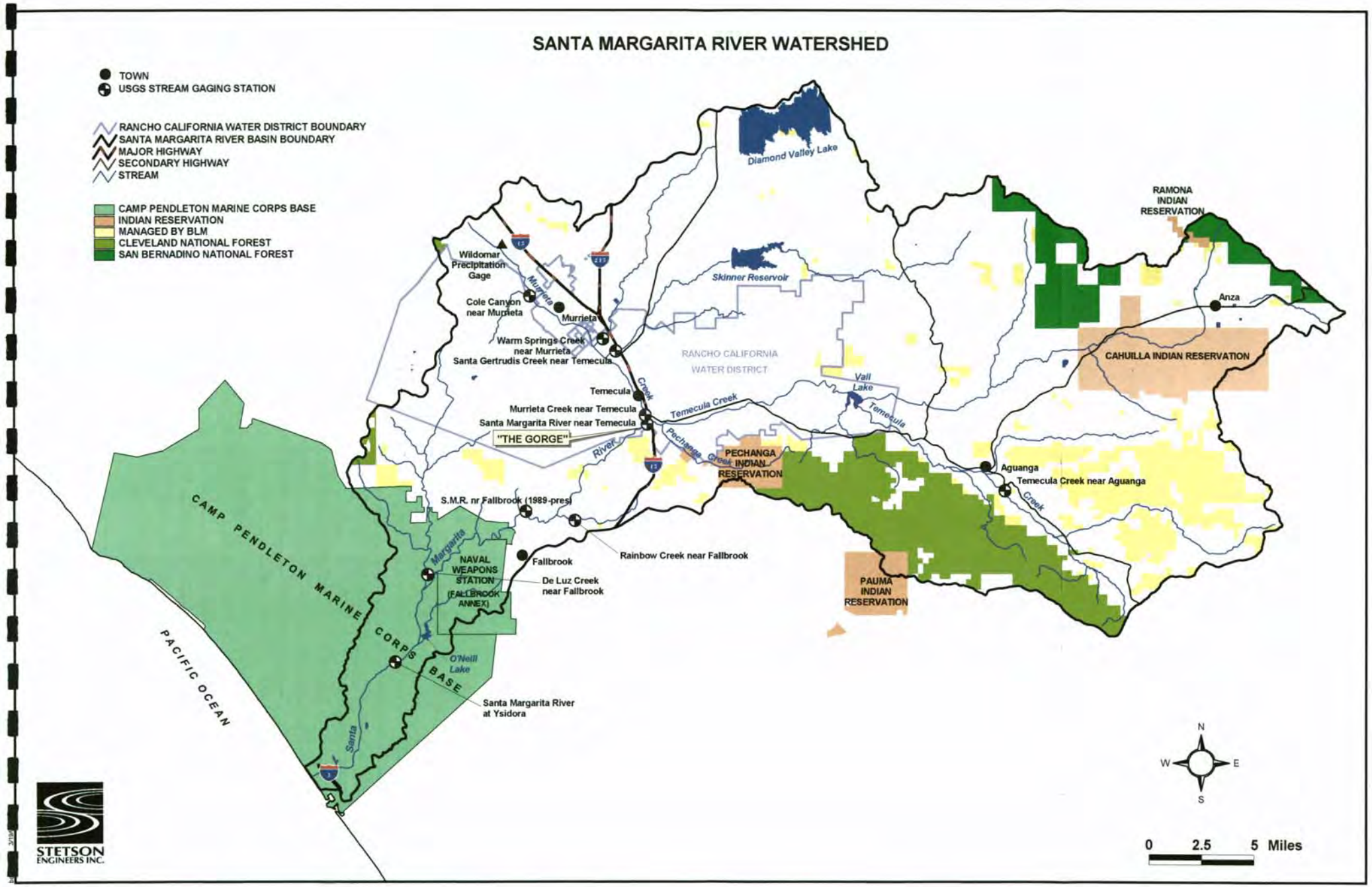

SANTA MARGARITA RIVER WATERSHED
TOWN
USGS STREAM GAGING STATION
RANCHO CALIFORNIA WATER DISTRICT BOUNDARY
SANTA MARGARITA RIVER BASIN BOUNDARY
MAJOR HIGHWAY
SECONDARY HIGHWAY
STREAM
CAMP PENDLETON MARINE CORPS BASE
INDIAN RESERVATION
MANAGED BY BLM
CLEVELAND NATIONAL FOREST
SAN BERNADINO NATIONAL FOREST
Diamond Valley Lake
Skinner Reservoir
RAMONA INDIAN RESERVATION
Anza
CAHUILLA INDIAN RESERVATION
RANCHO CALIFORNIA WATER DISTRICT
Vail Lake
Temecula Creek
Wildomar Precipitation Gage
Cole Canyon near Murrieta
Murrieta
Murrieta Creek
Warm Springs Creek near Murrieta
Santa Gertrudis Creek near Temecula
Temecula
Murrieta Creek near Temecula
Santa Margarita River near Temecula
"THE GORGE"
Pechanga Creek
PECHANGA INDIAN RESERVATION
Aguanga
Temecula Creek near Aguanga
S.M.R. nr Fallbrook (1989-pres)
Rainbow Creek near Fallbrook
Fallbrook
De Luz Creek near Fallbrook
NAVAL WEAPONS STATION (FALLBROOK ANNEX)
PAUMA INDIAN RESERVATION
CAMP PENDLETON MARINE CORPS BASE
PACIFIC OCEAN
O'Neill Lake
Santa Margarita River at Ysidora
N
W
E
S
0 2.5 5 Miles
STETSON ENGINEERS INC.

EXHIBIT B

DESCRIPTION OF THE GROUNDWATER MODEL AND HSPF SURFACE WATER MODEL, AND APPLICATION TO FLOW REQUIREMENTS

DESCRIPTION OF THE GROUNDWATER MODEL AND HSPF SURFACE WATER MODEL, AND APPLICATION TO FLOW REQUIREMENTS

The purpose of this Exhibit is to memorialize and explain the method used to develop the flows guaranteed in the Agreement. To the extent there may be any inconsistencies, the language of the Agreement, and not this Exhibit, establishes the District's flow guarantees.

MODFLOW GROUNDWATER MODEL

The RCWD/CAMP PENDLETON surface and groundwater model (Groundwater Model) was developed to investigate the effects of groundwater pumping on streamflow within the Murrieta-Temecula area of Riverside County in southern California. The Groundwater Model was developed by GEOSCIENCE Support Services, Inc. (GEOSCIENCE) in cooperation with the United States Geologic Survey (USGS). Rancho California Water District (RCWD), the United States Marine Corps - Camp Pendleton Base (Camp Pendleton), Stetson Engineers, Inc. (Stetson), and the Santa Margarita River Watershed Watermaster (SMR Watermaster).

The Groundwater Model was developed for streams and the unconsolidated and poorly consolidated sediments of the Murrieta-Temecula Basin. The Groundwater Model consists of three distinct model layers: Layer 1 - Younger Alluvium; Layer 2 - Pauba Formation; and Layer 3 - Temecula Arkose. The streams crossing the model area in the aquifers (i.e., Younger Alluvium, Pauba Formation and Temecula Arkose) can be both influent (losing water to the aquifer) and effluent (gaining water from the aquifer). The streamflow inflow components are the surface runoff generated from rain events and water gained from aquifers. The streamflow outflow components are leakage into the aquifers and flow out of the model area through the Gorge. The primary sources of recharge to the aquifers include subsurface recharge, underflow recharge, areal recharge, artificial recharge, return flow and streamflow leakage. The primary discharge terms are groundwater pumping, evapotranspiration, underflow discharge and leakage out of the aquifer.

MODFLOW was the computer code used in the Murrieta-Temecula Basin model. MODFLOW is a block-centered, three-dimensional, finite-difference groundwater flow model developed by the USGS (McDonald and Harbaugh, 1988) for the purpose of modeling groundwater flow model to account for the interaction between surface streams and groundwater.

The model covers approximately 288 square miles with a three layer variable-grid network consisting of 102 nodes in the north-to-south direction (i-direction), 127 nodes in the west-to-east direction (j-direction), for a total of 38,862 nodes. Most nodes represent an area 600 ft (north-south) by 600 ft (east-west). Nodes near the edges of the model are of variable size, ranging up to 5,000 ft on a side.

The period selected for the model calibration was 1935 to 1994. This period covers various wet and dry hydrologic cycles, and pre-development and development conditions. A quarterly stress period was used for model calibration. After the model was calibrated, a verification run (Run 89) was simulated by adding the period 1995-1998 to the final model calibration run (Run 88B).

Model simulation (Run 93) of the condition of actual precipitation without any pumping or any effect of Vail Dam was conducted to calculate the natural streamflow at the Gorge. This was done using the same model input data from Model Run 89 (final calibration and verification) except for the Streamflow-Routing Package and Well Package. Quarterly flux for Vail Releases and Vail Spill of the Streamflow Routing Package was based on the net Vail Dam inflow. The net Vail Dam inflow calculation involve estimating the calculated Vail inflow by balancing the Vail Dam releases, Vail Dam spill, evaporation, precipitation and change in storage on a monthly basis. The net Vail Dam inflow then can be calculated by subtracting the evapotranspiration of the phreatophytes under no Vail Dam conditions, from the calculated Vail Dam inflow. The well package was recompiled to include only subsurface recharge, underflow recharge, and underflow discharge. RCWD pumping, private pumping, artificial recharge, and return flow were excluded. The results of this model run are presented in the report Surface and Groundwater Model of the Murrieta-Temecula Basin, California (GEOSCIENCE, 2000).

HSPF SURFACE WATER MODEL

Monthly base flows at the Gorge are defined by hydrologic conditions based on rainfall at the Wildomar precipitation station and streamflow at the Aguanga streamflow gage (see Exhibit C). The current hydrologic condition and the monthly base flows are used in Section 5 of the Agreement to provide a basis for supplementing streamflow at the Gorge to meet the flow guarantees of the Agreement.

Natural streamflow at the Gorge was simulated using daily precipitation input values to the HSPF model. The calibration period chosen was from October 1930 to September 1936 and the transient period extended from 1936 to 1996. HSPF is able to account for antecedent conditions in the watershed using daily rainfall data from the Wildomar rain gage. Figure B-1 shows a comparison of simulated versus actual streamflow during the calibration period. Frequency distribution tables and plots were constructed to show the distribution of daily natural flow on a monthly basis. The results of this analysis is presented in Technical Memorandum 3.0 (Stetson Engineers, March 1, 2000)

COMPARISON OF HSPF AND RCWD/CAMP PENDLETON GROUNDWATER MODELS

The Environmental Protection Agency's Hydrologic Simulation Program Fortran (HSPF) was used to simulate daily streamflow based on daily precipitation data from the Wildomar station. The correlation between rainfall and runoff provides the ability to determine the conditions of the basin based on daily rainfall data. The RCWD/Camp Pendleton Groundwater Model simulates streamflow at the Gorge based on quarterly values of tributary inflow, subsurface inflow, aerial recharge and other recharge mechanisms.

TABLE B-1

COMPARISON OF HSPF AND GROUNDWATER MODEL NATURAL FLOW QUARTERLY STREAMFLOW VALUES AT THE GORGE (1935 TO 1996)

QUARTERLY PERIOD	MEDIAN HSPF (CFS)	MEDIAN G-W MODEL (CFS)	DIFFERENCE (%)
October - December	8.8	10.0	14
January - March	19.0	17.1	-10
April - June	11.7	10.1	-13
July - September	7.9	7.7	-2
Annual Mean	11.8	11.2	-5

Comparison of quarterly values of both the HSPF and Groundwater Model indicates a high degree of correlation. Statistically, the annual mean of quarterly median streamflow of both the HSPF and Groundwater Models is 11.82 cfs and 11.24 cfs, respectively. Quarterly medians are also similar between the two models, differing by no more than 1.9 cfs (10%) during the winter quarter (Table B-1). The natural flow analysis presented in this exhibit is based on the HSPF model since it compares well with the Groundwater Model, is based on daily precipitation, and can be calculated on either a daily, monthly, or annual basis.

NATURAL FLOW OF THE SANTA MARGARITA RIVER NEAR TEMECULA

The frequency distribution table and graphs allow the hydrologist to estimate the statistical occurrence and probabilities of specific flows. This method is extremely useful in southern California streams with flows that vary order of magnitudes during any given year. The 50% probability on the frequency distribution graph represents the median daily flow for the stream system. In general, flows calculated based on means will be greater than flows based on the median. For example, the mean daily natural flow during the month of October is calculated to be 10.6 cfs, while the median flow is simulated to be only 7.9. During high flow months such as February, mean daily natural flow is estimated to be 211 cfs, while median daily flow during the same month is 17.4 cfs. Frequency distribution allows hydrologists to estimate the variability and distribution of flows based on seasonal and hydrological changes.

Streamflow values during dry, normal, and wet hydrologic conditions may be estimated using the variability of the historical natural flow during dry, normal, and wet hydrologic conditions. In order to estimate median flows during dry and wet cycles, two separate period of records were chosen to represent these different hydrologic conditions. Water years 1957 to 1966 were selected to represent dry natural flow conditions, while water years 1937 to 1946 were chosen to represent a wet hydrologic cycle. In order to estimate median flows during these periods, frequency distribution analysis and plots were developed for each cycle.

The mean median annual natural flow during dry hydrologic conditions is 5.3 cfs, less than half of the annual natural flow for the entire period of record of 12.0 cfs. The mean median annual natural flow during wet hydrologic conditions is 23.4 cfs, almost twice the annual natural flow. The median daily flow during the wet period ranged from 13.8 cfs in August to 49.4 cfs in March.

DETERMINING FLOW REQUIREMENTS AT THE GORGE

Flow requirements at the Gorge are based on two-thirds the median natural flow during wet, normal, and dry conditions. Flow requirements for critically dry and very wet conditions are based on the 50% median flows for the period 1957 to 1966 and 1937 to 1946, respectively. Above normal flows are based on the mean of the 50% median wet flows and the 50% median all years. Similarly, below normal flows are based on the mean of the 50% median dry flows and the 50% median all years. Table B-2 shows the results of this determination and is the basis for the flow guarantees established in Section 5 of the Agreement.

TABLE B-2

DAILY FLOWS AT THE GORGE BASED ON TWO-THIRDS OF THE MEDIAN NATURAL FLOW AS DETERMINED BY THE HSPF MODEL

MONTH	CRITICALLY DRY FLOW (CFS)	BELOW NORMAL FLOW (CFS)	ABOVE NORMAL FLOW (CFS)	VERY WET FLOW (CFS)
October	3.0	3.9	7.7	10.1
November	3.0	4.5	8.8	11.5
December	3.3	5.3	10.4	13.5
January	3.3	6.9	13.6	16.8
February	4.6	8.1	17.5	23.4
March	4.9	8.7	22.7	32.9
April	5.0	8.2	17.2	23.1
May	3.8	5.7	11.7	15.7
June	3.3	4.9	9.4	12.2
July	3.0	4.3	7.8	9.7
August	3.0	4.4	7.6	9.2
September	3.0	4.1	7.4	9.4
Total	3.6	5.8	11.8	15.6

Note: Flow is based on 2/3 natural flow or 3 cfs, whichever is greater.

DETERMINATION OF HYDROLOGIC CONDITIONS

The methodology used to estimate the required monthly base flows at the Gorge is based on flows occurring during different hydrologic conditions. The median flow during the wet hydrologic cycle defines the break between above normal and very wet conditions when compared to the entire period of record. Similarly, the median flow during the dry hydrologic cycle defines the break between critically dry and below normal conditions. In order to determine the frequency at which these different hydrologic cycles occur, the median from the dry and wet cycles are compared to the monthly flow values for the entire period of record. Table B-3 below shows the results for each month when the dry and wet cycle median natural flow is plotted on the entire period of record for each month. For example, the December median dry cycle (WY 1957-1966) natural flow value of 4.9 cfs was plotted on the frequency distribution graph for the entire period of record (WY 1931-1996). The result indicated that the 4.9 cfs flow would be met or exceeded 87.4% of the time (Table B-3). The table shows the variation between the months for both dry and wet cycles. In order to remain consistent while determining different hydrologic cycles, the median values for the twelve months were used.

TABLE B-3

WET AND DRY TIME EXCEEDANCE VALUES FOR EACH MONTH USING THE ENTIRE PERIOD OF RECORD

MONTH	DRY FLOW (%)	WET FLOW (%)
October	84.5	22.1
November	84.7	22.8
December	87.4	24.2
January	90.1	28.1
February	87.1	26.8
March	86.9	26.5
April	83.3	24.6
May	84.7	25.1
June	85.0	21.4
July	83.8	24.2
August	82.7	27.8
September	80.4	19.8
Median	84.7	24.4

Exhibit C describes the development of a hydrologic index for the Santa Margarita River Basin which is based on the median values of the monthly wet and dry time exceedance. The hydrologic break between extremely dry and below normal occurs at the 84.7% exceedance value while the break between above normal and very wet hydrologic conditions occurs at 24.4%. The hydrologic break between above normal and below normal occurs at the 50% exceedance interval.

Simulated versus Historical Streamflow at the Gorge (WY 1931-1936)

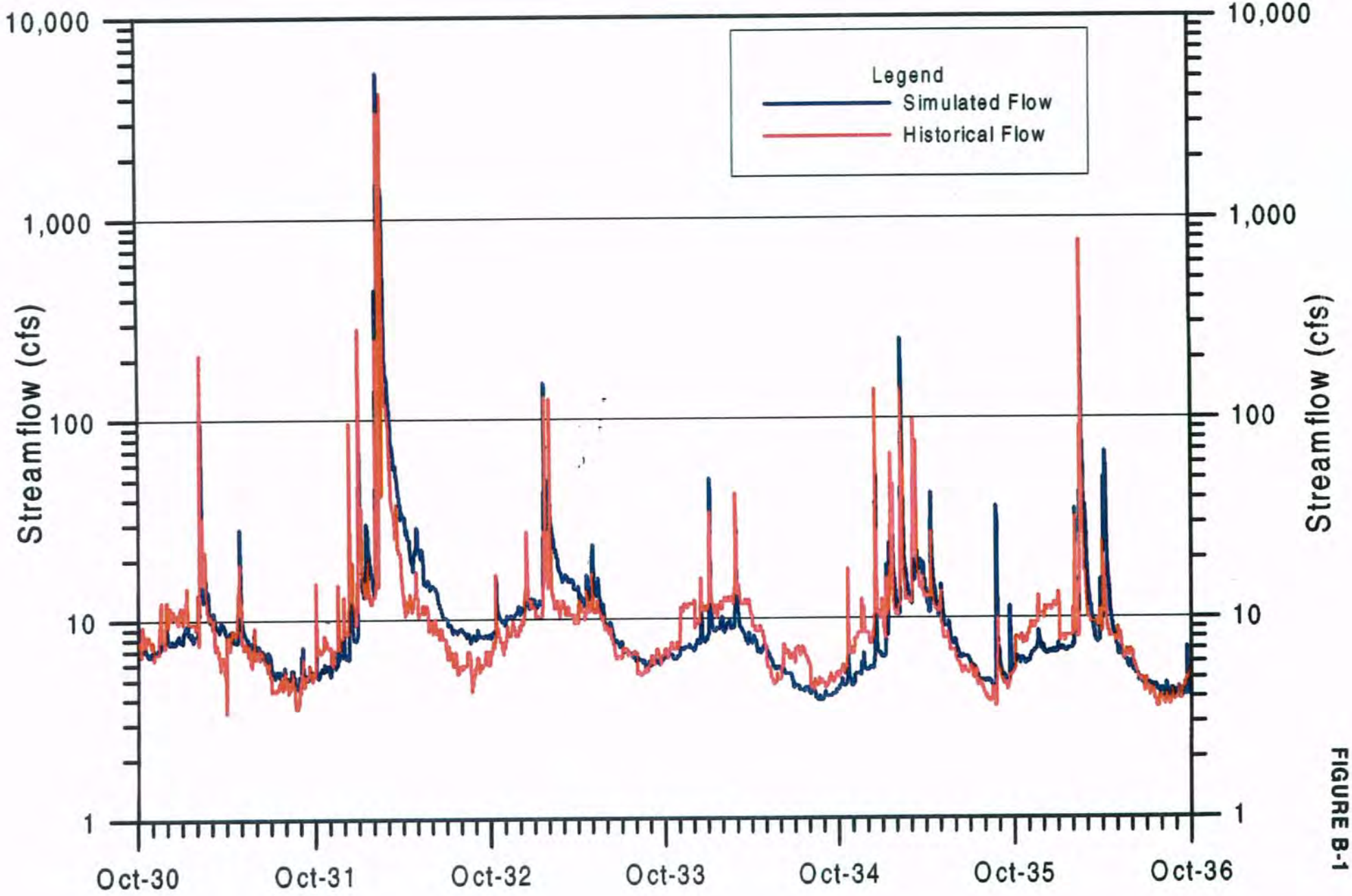


FIGURE B-1

Frequency Distribution of Natural Flow at the Gorge During The Month of October (WY 1931-1996)

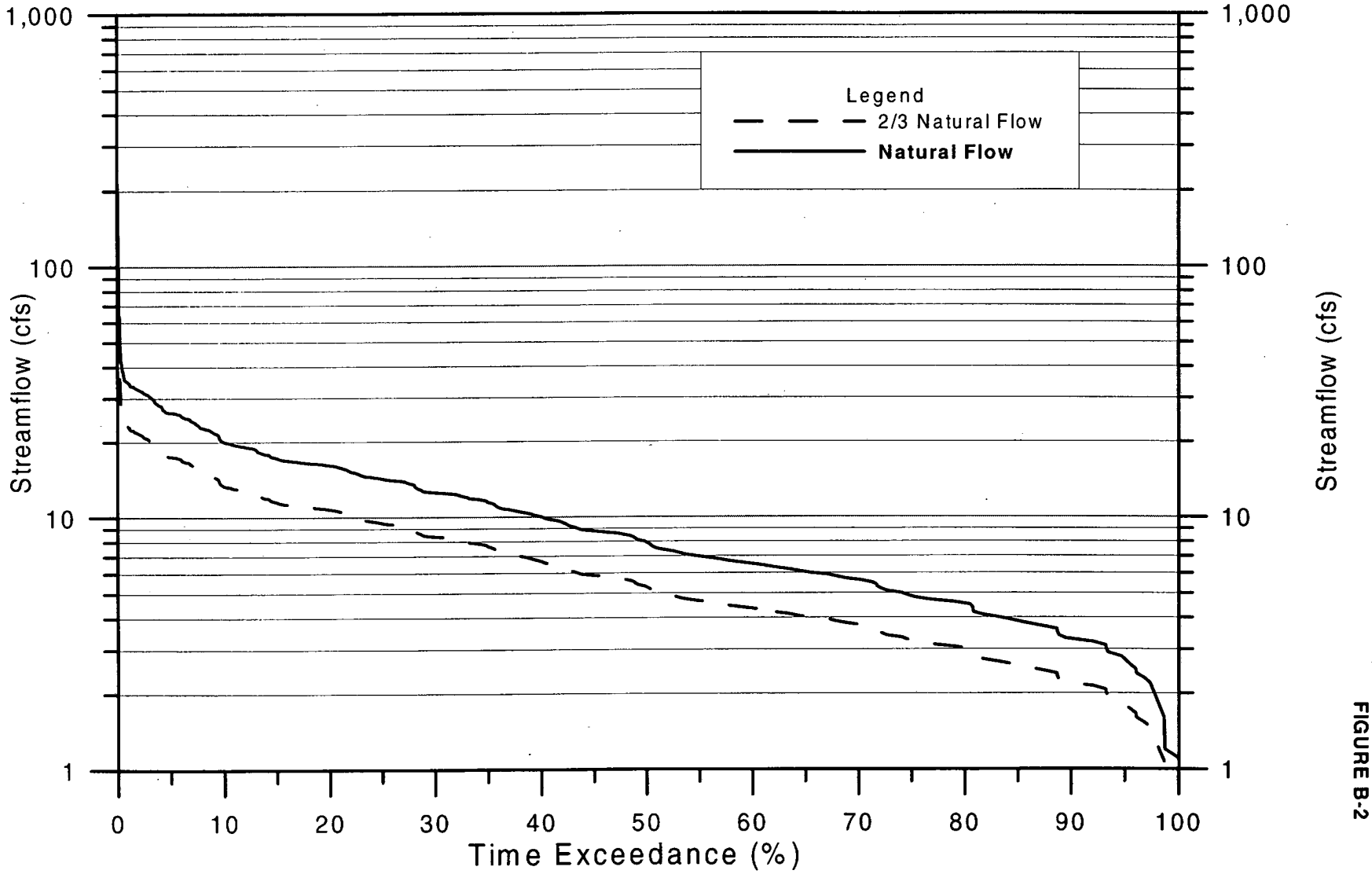


FIGURE B-2

EXHIBIT C

DETERMINATION OF HYDROLOGIC CONDITIONS IN THE SANTA MARGARITA RIVER BASIN

EXHIBIT C

DETERMINATION OF HYDROLOGIC CONDITIONS IN THE SANTA MARGARITA RIVER BASIN

The purpose of this Exhibit is to memorialize and explain the method used to develop the flows guaranteed in the Agreement. To the extent there may be any inconsistencies, the language of the Agreement, and not this Exhibit, establishes the District's flow guarantees.

This Exhibit describes the streamflow and precipitation data available in the upper basin and the hydrologic index used to describe the hydrologic condition of the Santa Margarita River Basin above the Gorge. The hydrologic index is calculated using the historical precipitation record at the Wildomar precipitation gage, streamflow at the Aguanga streamflow gage, and calculated natural streamflow at the Gorge and Murrieta gages. The methodology accounts for antecedent conditions that existed prior to the year being determined, allowing for a previous wet year or dry year to influence the current year's hydrologic condition. The methodology provides a means to determine the flow requirements at the Gorge for twelve months, in conjunction with other provisions of the Agreement.

Based on the October through April's natural streamflow totals at Murrieta and Vail Lake, the May through December monthly streamflow requirement at the Gorge is categorized as either Critically Dry, Below Normal, Above Normal, or Very Wet hydrologic conditions. The January through April streamflow requirement is predetermined to be 11.5 cubic feet per second (cfs), calculated from the average of January through April's median natural flow requirement at the Gorge. The median natural flow requirement is two-thirds the simulated natural flow at the Gorge based on the period of record 1931 through 1996.

ESTABLISHMENT OF A HYDROLOGIC INDEX

The hydrologic index combines October through April natural streamflow at Murrieta, natural streamflow at Vail Lake, and natural streamflow from Pauba and Wolf Valleys. Natural flow at Murrieta is calculated using the rainfall/run-off relationship between rainfall at Wildomar and the HSPF natural flow at Murrieta, developed in Technical Memorandum 1.0 (January 20, 2000). Natural flow at Vail Lake is calculated using the run-off correlation between Aguanga streamflow and Inflow to Vail Lake during the period water years 1958 to 1996, also developed in Technical Memorandum 1.0 (January 20, 2000). The natural flow contribution from Pauba and Wolf Valleys is calculated to be 50% of the natural run-off into Vail Lake.

Natural streamflow at Murrieta is calculated by the rainfall/runoff relationship developed between monthly rainfall at Wildomar and monthly natural streamflow determined from the HSPF model. Equation 1 provides the polynomial equation that describes this relationship, where X is the monthly rainfall in inches and Y is the monthly natural streamflow at Murrieta in cubic feet per second (cfs):

$$Y = 9.068 - 34.798 * X + 11.339 * X^2. \quad (X \geq 2.79) \quad (1)$$
$$Y = 0 \quad (X < 2.79)$$

Runoff at Vail Lake is calculated by the runoff/runoff relationship developed between runoff at Aguanga and inflow to Vail Lake. Equation 2 provides the linear equation that describes this relationship, where X is October through April natural streamflow at Aguanga (Acre-Feet) and Y is October through April natural streamflow at Vail Lake (Acre-Feet):

$$Y = 1.380 * X \quad \text{(Acre-Feet)}. \quad (2)$$

Contribution from the Pauba and Wolf valleys was estimated to be 50% of the natural inflow to Vail Lake. Run-off relationships between Aguanga, Murrieta, Pechanga Creek, and the Gorge, as well as sensitivity analysis during development of the Hydrologic Index, were used to determine the proportion of contribution from these two valleys..

Figure C-1 provides the frequency distribution curves of the combined total October through April natural streamflow at Murrieta, natural streamflow at Vail Lake, and natural streamflow contribution from Pauba and Wolf Valleys. The frequency distribution curve was divided into four parts established by the 24th, 50th, and 85th percentile breaks (Exhibit B and Technical Memorandum 3.0, February 25, 2000). Using these breakpoints, the division between Critically Dry, Below Normal, Above Normal, and Very Wet hydrologic conditions was established. The corresponding breaks between hydrologic conditions are 3,230 acre-feet, 14,510 acre-feet, and 47,810 acre-feet, respectively. Review of 66 years of historical data indicates that ten years would have been classified as Critically Dry, 23 years as Below Normal, 17 years as Above Normal, and 16 years as Very Wet.

The hydrologic index was compared to actual water years for the 66 year period from 1931 to 1996. Of the 66 years that were compared, the hydrologic index mismatched nineteen years; overestimating nine years while underestimating the hydrologic conditions during the other ten years (Table C-1, Attached). The antecedent conditions prior to the Below Normal and Above Normal "misses" were reviewed in order to correct errors. If the hydrologic condition was determined to be Below Normal and the prior year was determined to be Above Normal or Very Wet, 2,200 AF was added to the hydrologic condition. Similarly, if the hydrologic condition was determined to be Above Normal and the previous year was classified as Critically Dry, 10,000 AF was subtracted from the hydrologic condition. These adjustment values were developed from an iterative process of refining the Hydrologic Index by minimizing the number of mismatches. The algorithm used to adjust for antecedent conditions prior to Above Normal

and Below Normal years was applied to all values in column (7). Hydrologic conditions that were incorrectly classified as Very Wet or Critically dry were not adjusted.

The results of adjusting for antecedent conditions during Above Normal and Below Normal years decreases the number of misses to thirteen. Of these thirteen years, seven years are overestimated while six years are underestimated. Closer inspection of the data shows that the hydrologic index tends to overestimate hydrologic conditions during the first half of the data set and underestimate hydrologic conditions during the later half of the record. For example, five of the seven years that are overestimated occur when calculated inflow to Vail Lake or streamflow at Butterfield Canyon were used to estimate natural flow at Vail Lake. The data set used in the regression analysis used to convert streamflow at Aguanga to natural flow at Vail Lake began in 1958.

IMPLEMENTATION OF THE HYDROLOGIC INDEX

The hydrologic index used to estimate the required streamflow at the gorge is based on natural streamflow at Murrieta and Vail Lake. On May 1st of each year the rainfall at Wildomar is used to estimate natural flow at Murrieta and the streamflow at Aguanga is used to estimate natural flow at Vail Lake. A simple spreadsheet, that would adjust for antecedent conditions, may be used to calculate the hydrologic index based on these input parameters. Once the hydrologic condition is determined, the table in Section 5 of the Agreement is used to determine the required flows at the Gorge.

Figure C-2 provides a schematic diagram of the steps to be followed to determine the hydrologic condition that would prescribe the current year's summer time flows and the following year's winter flow requirement. The following outline provides the steps necessary to implement the Agreement. **[Both Figure C-2 and the following outline do not address credits for groundwater banking to Camp Pendleton]**

First Year of Agreement:

F-1. Provide 11.5 cfs at the Gorge from January 1 to April 30
F-2. Determine Hydrologic Condition on May 1
   a. Convert monthly precipitation at Wildomar to monthly natural flow at Murrieta using equation (1) above.
   b. Sum October through April natural flow at Murrieta.
   c. Sum October through April streamflow at Aguanga.
   d. Convert streamflow at Aguanga to natural flow at Vail lake using equation (2) above.
   e. Add 50% of Natural Flow at Vail Lake for Pauba and Wolf Valleys' contribution.
   f. Add (b) + (d) + (e) and calculate hydrologic condition Using Figure C-1.

g. Correct for antecedent condition:
    i. If hydrologic condition is classified as Above Normal and previous year was Critically Dry, subtract 10,000 from (f).
    ii. If hydrologic condition is classified as Below Normal and previous year was Above Normal or Very Wet, add 2,200 to (f).

h. Redetermine Hydrologic Condition Using corrected value and Figure C-1.

F-3. Determine Flow Requirements

a. Based on the Hydrologic Condition determined in F-2(h), specify May through December required flows at the Gorge using the table in Section 5 of the Agreement.

b. If Hydrologic Condition is "Below Normal" or "Critically Dry", determine the District's Carry-Over Credit to be applied the during the following winter.

c. If Hydrologic Condition is "Above Normal" or "Very Wet", no Carry-Over Credit is to be applied during the following winter.

Subsequent Years of the Agreement:

S-1. Provide 11.5 cfs less Carry-Over Credit, if available, from January 1 to April 30

S-2. Determine Hydrologic Condition on May 1

a. Follow F-2(a) through (h).

S-3. Determine Flow Requirements

a. Based on the Hydrologic Condition determined in S-2(a), specify May through December required flows at the Gorge using the table in Section 5 of the Agreement.

b. If Hydrologic Condition is "Below Normal" or "Critically Dry", determine the District's Carry-Over Credit to be applied during the following winter. Add to existing Carry-Over Credit that has not been applied.

c. If Hydrologic Condition is "Above Normal" or "Very Wet", apply any unused Carry-Over Credit to the following Winter.

In order to illustrate the procedure for determining and meeting flow requirements at the Gorge, actual rainfall and streamflow data from 1992 and 1993 were chosen. The example below would represent the implementation of the hydrologic determination and flow requirements during the first and second years of the Agreement. Although not shown below, if the Agreement were in place in 1991, the Carry-Over Credit to 1992 would have been 227 AF, reducing the winter flow requirement from 11.5 cfs to 10.5 cfs.

F-1. Provide 11.5 cfs at the Gorge from January 1, 1992 to April 30, 1992

F-2. Determine Hydrologic Condition on May 1

a. October 1991 through April 1992 rainfall at Wildomar:
   10/91 precip = 0.18 inches ≡ 0 AF streamflow
   11/91 precip = 0.04 inches ≡ 0 AF streamflow
   12/91 precip = 1.79 inches ≡ 0 AF streamflow
   01/92 precip = 2.71 inches ≡ 0 AF streamflow
   02/92 precip = 7.06 inches ≡ 20,204 AF streamflow
   03/92 precip = 4.34 inches ≡ 4,404 AF streamflow
   04/92 precip = 0.26 inches ≡ 0 AF streamflow

b. October 1991 through April 1992 natural streamflow at Murrieta = 24,608 AF.

c. October 1991 through April 1992 streamflow at Aguanga = 2,886 AF.

d. Natural flow at Vail Lake = 3,982 AF.

e. Add an additional 1,991 AF for contribution from Pauba and Wolf Valleys.

f. Hydrologic Condition is "Above Normal" based on 30,580 AF of Natural Flow (Figure C-1) at approximately 30% Exceedance.

g. Previous year classified as "Very Wet" so,
   i. No correction necessary

h. Hydrologic Condition remains "Above Normal".

F-3. Determine Flow Requirements

a. Non-Winter Flow Requirements:

May =	11.5 cfs
June =	9.4 cfs
July =	7.8 cfs
August =	7.6 cfs
September =	7.4 cfs
October =	7.7 cfs
November =	8.8 cfs
December =	10.4 cfs

b./c. 0 AF Carry-Over Credit since Hydrologic Condition was "Above Normal".

S-1. Provide 11.5 cfs - 0 Carry-Over Credit from January 1, 1993 to April 30, 1993.

S-2. Determine Hydrologic Condition on May 1

a. October 1992 through April 1993 rainfall at Wildomar:
10/92 precip = 0.66 inches ≡ 0 AF streamflow
11/92 precip = 0.00 inches ≡ 0 AF streamflow
12/92 precip = 4.46 inches ≡ 4,884 AF streamflow
01/93 precip = 15.39 inches ≡ 132,767 AF streamflow
02/93 precip = 9.41 inches ≡ 42,161 AF streamflow
03/93 precip = 1.20 inches ≡ 0 AF streamflow
04/93 precip = 0.00 inches ≡ 0 AF streamflow

b. October 1992 through April 1993 natural streamflow at Murrieta = 179,812 AF.

c. October 1992 through April 1993 streamflow at Aguanga = 37,668 AF.

d. Natural flow at Vail Lake = 51,968 AF.

e. Add an additional 25,984 AF for contribution from Pauba and Wolf Valleys.

f. Hydrologic Condition is "Very Wet" based on 257,764 AF of Natural Flow (Figure C-1) at approximately 1% Exceedance.

g. Previous year classified as "Above Normal" and existing year classified as "Very Wet", so,
i. No correction necessary

h. Hydrologic Condition remains "Very Wet".

S-3. Determine Flow Requirements

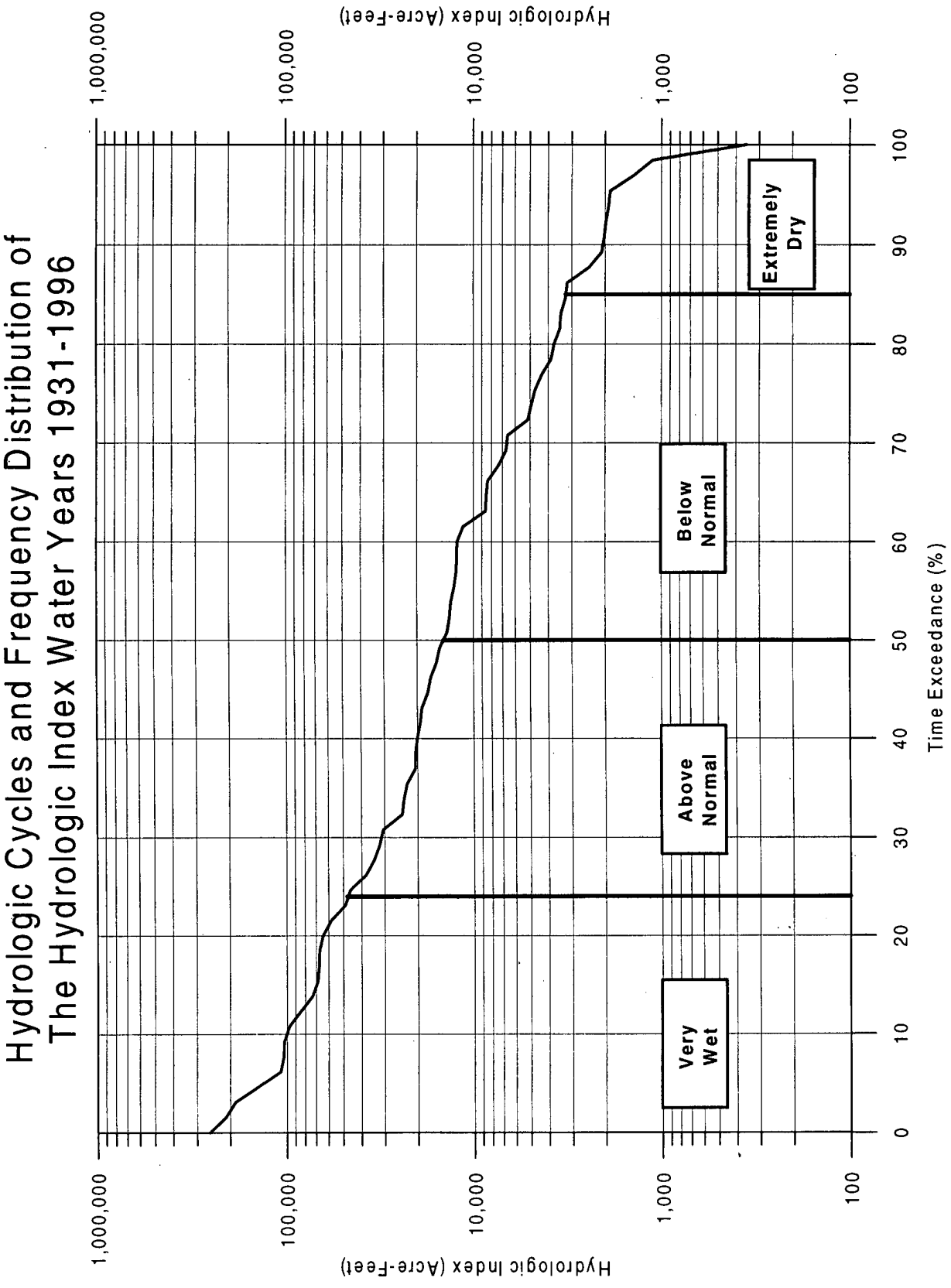
a. Non-Winter Flow Requirements:

May = 11.5 cfs
June = 11.5 cfs
July = 9.7 cfs
August = 9.2 cfs
September = 9.4 cfs
October = 10.1 cfs
November = 11.5 cfs
December = 11.5 cfs.

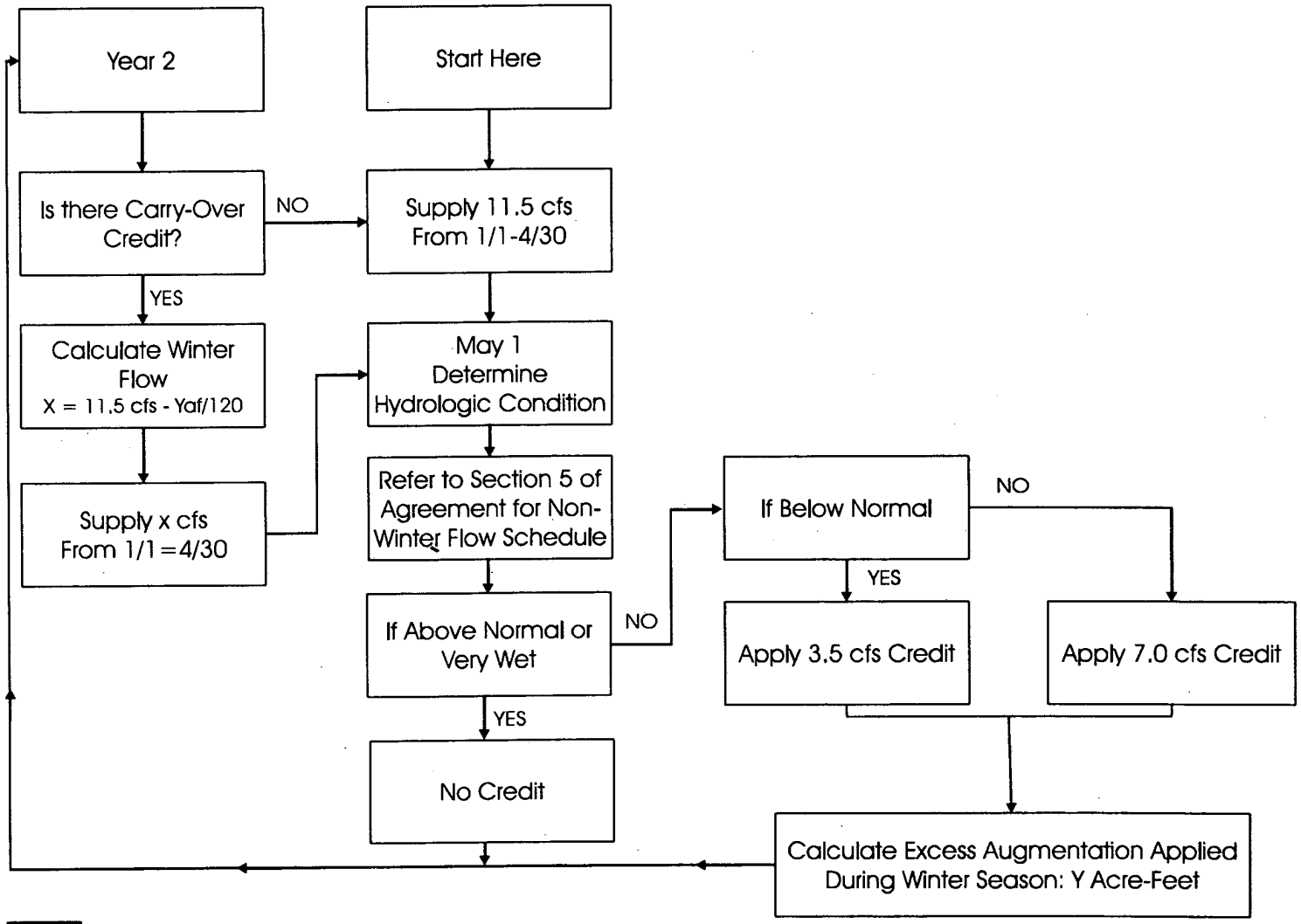
b./c. 0 AF Carry-Over Credit since Hydrologic Condition was "Very Wet".

As mentioned above, if the Agreement had been in place in 1991 there would have been 227 AF of Carry-Over Credit from 1991 to 1992, reducing the flow requirement at the Gorge from 11.5 to 10.5. Since 1992 was an "Above Normal" year, only 161 AF of the 227 AF would have been applied as credit, leaving 66 AF to be applied in 1993. The 66 AF applied to 1993 would reduce the winter time flow requirement 0.3 cfs from 11.5 cfs to 11.2 cfs. **[The credit to Camp Pendleton for foregoing higher minimum flows during "Above Normal" and "Very Wet" years is not addressed in this example.]**

Figure C-1


Hydrologic Cycles and Frequency Distribution of
The Hydrologic Index Water Years 1931-1996
Hydrologic Index (Acre-Feet)
1,000,000
100,000
10,000
1,000
100
Time Exceedance (%)
0
10
20
30
40
50
60
70
80
90
100
Very Wet
Above Normal
Below Normal
Extremely Dry

Flow Diagram of Settlement Agreement Minimum Flows



STETSON ENGINEERS INC.

Figure C-2

TABLE C-1

CALCULATION OF THE HYDROLOGIC INDEX
SANTA MARGARITA RIVER BASIN

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		(10)
	Classification	Aguanga	Calculated	Wildomar	Calculated			Water Year		
	based on	Streamflow	Vail Inflow	Precipitation	Murrieta Flow	Hydrologic	Water Year	Classification		Over/Under-
Water	Majority	Oct-Apr Sum	Oct-Apr Sum	Oct-Apr Sum	Oct-Apr Sum	Index	Classification	Corrected for		Estimate
Year	WY Class	(AF)	(AF)	(in)	(AF)	(AF)		Anteceedent	Flag	
1931	Below Normal		1,512	9.87	2,066	4,334	Below Normal	Below Normal	0	
1932	Above Normal		14,778	18.30	44,975	67,143	Very Wet	Very Wet	1	Overestimate
1933	Below Normal		3,311	9.43	7,290	12,256	Below Normal	Below Normal	0	
1934	Extremely Dry		1,391	7.52	1,395	3,482	Below Normal	Below Normal	1	Overestimate
1935	Below Normal		3,365	16.38	2,325	7,372	Below Normal	Below Normal	0	
1936	Below Normal		3,445	10.64	15,354	20,522	Above Normal	Above Normal	1	Overestimate
1937	Very Wet		34,392	25.21	52,065	103,653	Very Wet	Very Wet	0	
1938	Very Wet		29,210	20.19	60,418	104,233	Very Wet	Very Wet	0	
1939	Above Normal		6,713	14.53	35,925	45,994	Above Normal	Above Normal	0	
1940	Above Normal		5,577	11.28	5,495	13,860	Below Normal	Above Normal	0	
1941	Very Wet		20,888	27.07	66,156	97,489	Very Wet	Very Wet	0	
1942	Above Normal		8,485	9.86	0	12,728	Below Normal	Above Normal	0	
1943	Very Wet		12,412	19.26	66,013	84,632	Very Wet	Very Wet	0	
1944	Above Normal		6,588	13.52	24,425	34,308	Above Normal	Above Normal	0	
1945	Above Normal		5,882	12.91	14,864	23,687	Above Normal	Above Normal	0	
1946	Above Normal		4,004	9.92	6,377	12,382	Below Normal	Above Normal	0	
1947	Below Normal		2,432	8.13	8,594	12,242	Below Normal	Below Normal	0	
1948	Below Normal		1,721	7.71	850	3,432	Below Normal	Below Normal	0	
1949	Below Normal		2,443	8.02	1,475	5,138	Below Normal	Below Normal	0	
1950	Extremely Dry		1,256	6.34	0	1,884	Extremely Dry	Extremely Dry	0	
1951	Extremely Dry		942	4.27	0	1,414	Extremely Dry	Extremely Dry	0	
1952	Very Wet		11,007	19.52	32,419	48,929	Very Wet	Very Wet	0	
1953	Below Normal		1,407	8.84	1,772	3,882	Below Normal	Below Normal	0	
1954	Above Normal		4,580	12.12	13,196	20,065	Above Normal	Above Normal	0	
1955	Below Normal		1,064	9.22	3,328	4,924	Below Normal	Below Normal	0	
1956	Extremely Dry		1,074	6.79	2,126	3,738	Below Normal	Below Normal	1	Overestimate
1957	Extremely Dry		740	9.61	16,526	17,635	Above Normal	Above Normal	1	Overestimate

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		(10)
	Classification	Aguanga	Calculated	Wildomar	Calculated			Water Year		
	based on	Streamflow	Vail Inflow	Precipitation	Murrieta Flow	Hydrologic	Water Year	Classification		Over/Under-
Water	Majority	Oct-Apr Sum	Oct-Apr Sum	Oct-Apr Sum	Oct-Apr Sum	Index	Classification	Corrected for		Estimate
Year	WY Class	(AF)	(AF)	(in)	(AF)	(AF)		Anteceedent	Flag	
1958	Very Wet	8,669	11,961	26.00	49,581	67,522	Very Wet	Very Wet	0	
1959	Below Normal	716	987	5.24	1,693	3,174	Extremely Dry	Extremely Dry	1	Underestimate
1960	Extremely Dry	809	1,116	9.84	414	2,087	Extremely Dry	Extremely Dry	0	
1961	Extremely Dry	171	235	5.09	0	353	Extremely Dry	Extremely Dry	0	
1962	Below Normal	1,438	1,983	15.59	19,873	22,848	Above Normal	Below Normal	0	
1963	Below Normal	181	249	8.37	4,326	4,700	Below Normal	Below Normal	0	
1964	Extremely Dry	541	746	8.13	0	1,119	Extremely Dry	Extremely Dry	0	
1965	Below Normal	1,058	1,460	12.35	22,013	24,203	Above Normal	Below Normal	0	
1966	Above Normal	4,673	6,447	19.19	63,527	73,197	Very Wet	Very Wet	1	Overestimate
1967	Above Normal	7,082	9,770	15.55	17,364	32,020	Above Normal	Above Normal	0	
1968	Below Normal	1,018	1,404	11.79	4,602	6,708	Below Normal	Below Normal	0	
1969	Very Wet	17,107	23,601	29.40	176,676	212,077	Very Wet	Very Wet	0	
1970	Above Normal	1,183	1,632	11.42	16,878	19,325	Above Normal	Above Normal	0	
1971	Below Normal	896	1,236	7.67	580	2,435	Extremely Dry	Extremely Dry	1	Underestimate
1972	Below Normal	853	1,177	6.19	4,802	6,568	Below Normal	Below Normal	0	
1973	Above Normal	3,107	4,287	15.37	9,426	15,856	Above Normal	Above Normal	0	
1974	Below Normal	1,234	1,702	11.21	18,028	20,582	Above Normal	Above Normal	1	Overestimate
1975	Below Normal	935	1,290	12.84	6,482	8,417	Below Normal	Below Normal	0	
1976	Below Normal	964	1,330	10.39	11,484	13,478	Below Normal	Below Normal	0	
1977	Extremely Dry	510	704	7.00	968	2,024	Extremely Dry	Extremely Dry	0	
1978	Very Wet	11,723	16,174	31.24	118,004	142,264	Very Wet	Very Wet	0	
1979	Very Wet	8,404	11,594	21.46	51,097	68,488	Very Wet	Very Wet	0	
1980	Very Wet	26,114	36,027	27.82	134,267	188,308	Very Wet	Very Wet	0	
1981	Above Normal	4,198	5,791	7.32	2,655	11,342	Below Normal	Below Normal	1	Underestimate
1982	Above Normal	6,313	8,709	14.83	24,945	38,009	Above Normal	Above Normal	0	
1983	Very Wet	11,271	15,549	24.20	34,932	58,256	Very Wet	Very Wet	0	
1984	Above Normal	4,173	5,757	8.17	0	8,636	Below Normal	Below Normal	1	Underestimate

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		(10)
	Classification	Aguanga	Calculated	Wildomar	Calculated			Water Year		
	based on	Streamflow	Vail Inflow	Precipitation	Murrieta Flow	Hydrologic	Water Year	Classification		Over/Under-
Water	Majority	Oct-Apr Sum	Oct-Apr Sum	Oct-Apr Sum	Oct-Apr Sum	Index	Classification	Corrected for		Estimate
Year	WY Class	(AF)	(AF)	(in)	(AF)	(AF)		Anteceedent	Flag	
1985	Above Normal	3,590	4,953	9.54	11,543	18,972	Above Normal	Above Normal	0	
1986	Above Normal	5,174	7,139	11.64	2,547	13,255	Below Normal	Above Normal	0	
1987	Below Normal	1,567	2,162	7.75	0	3,243	Below Normal	Below Normal	0	
1988	Below Normal	1,831	2,526	17.33	4,756	8,545	Below Normal	Below Normal	0	
1989	Below Normal	934	1,289	6.65	51	1,984	Extremely Dry	Extremely Dry	1	Underestimate
1990	Below Normal	927	1,279	5.45	0	1,918	Extremely Dry	Extremely Dry	1	Underestimate
1991	Very Wet	8,775	12,106	14.39	46,117	64,277	Very Wet	Very Wet	0	
1992	Above Normal	2,886	3,982	16.38	24,608	30,580	Above Normal	Above Normal	0	
1993	Very Wet	37,668	51,968	31.12	179,812	257,763	Very Wet	Very Wet	0	
1994	Above Normal	4,574	6,310	10.97	7,533	16,999	Above Normal	Above Normal	0	
1995	Very Wet	14,874	20,521	22.55	77,346	108,127	Very Wet	Very Wet	0	
1996	Above Normal	3,424	4,724	8.73	8,081	15,167	Above Normal	Above Normal	0	
									13	

1) Water year based on October 1 to September 30.

2) Water Year classification based on majority of HSPF, Run 93, and natural flow at Vail Lake.

3) Total October through April streamflow at Aguanga

4) Calculated Vail Inflow based on streamflow at Aguanga

5) Total October through April Precipiation at Wildomar

6) Calculated Streamflow at Murrieta based on Wildomar Precipitation

7) Hydrologic Index - 150% Total Calculated Vail Inflow and Calculated Murrieta Flow (4) + (6) +.5*(4)

8) Water Year Classification based on 85%, 50% and 24% of column (7)

9) Water Year Classification corrected for Antecedent Conditions

10) Overestimate/Underestimate of required streamflow at the Gorge

Overestimate	7
Underestimate	6

EXECUTION VERSION

PECHANGA BAND OF LUISEÑO MISSION INDIANS WATER RIGHTS SETTLEMENT AGREEMENT

THIS SETTLEMENT AGREEMENT (this "***Agreement***") is made and entered into as of November 29, 2017, by and among the **PECHANGA BAND OF LUISEÑO MISSION INDIANS**, a federally recognized Indian Tribe (**"*Pechanga*"**), **RANCHO CALIFORNIA WATER DISTRICT**, a California water district organized pursuant to California Water Code section 34000 *et seq.* (**"*RCWD*"**) and the **UNITED STATES OF AMERICA** acting by and through the Secretary of the Department of the Interior.

RECITALS

A. In 1951, the United States initiated litigation over water rights in the Santa Margarita River Watershed in *United States v. Fallbrook Public Utility District et al.*, Civ. No. 3:51-cv-01247 (S.D.C.A.) ("***Adjudication Proceeding***").

B. The Adjudication Proceeding eventually expanded to include all water users within the Santa Margarita River Watershed, including three Indian Tribes (Pechanga, the Ramona Band of Cahuilla Indians, and Cahuilla Band of Indians). The United States, as trustee, represented all three tribes in the Adjudication Proceeding.

C. The U.S. District Court for the Southern District of California issued a series of interlocutory judgments establishing water rights for various water users as part of the Adjudication Proceeding. These interlocutory judgments were eventually encompassed in the Fallbrook Decree in 1966. The U.S. District Court retained jurisdiction to be able to interpret and enforce the Fallbrook Decree. The U.S. District Court in such role is hereinafter referred to as the "***Adjudication Court.***"

D. On November 8, 1962, the Adjudication Court issued Interlocutory Judgment No. 41 "concerning the rights to the use of waters of Santa Margarita River Stream System held in trust by the U.S.A. in connection with the Ramona, Cahuilla and Pechanga Indian Reservations."

E. In 1975, Pechanga filed a Complaint in Intervention in the Adjudication Proceeding to "enjoin the unlawful interference and destruction of its rights to the present and future use of the waters of the Santa Margarita River by the defendants named in this action." In 2006, the Cahuilla Band and the Ramona Band also filed Complaints in Intervention in the Adjudication Proceeding to quantify and enforce their water rights reserved in Interlocutory Judgment No. 41.

F. On December 21, 2006, Pechanga and RCWD entered into the Groundwater Management Agreement for the management of the water in the Wolf Valley Groundwater Basin (as that term is defined in such agreement).

G. On January 8, 2008, Pechanga and EMWD entered a Recycled Water Agreement providing for the sale and purchase of recycled water.

H. On March 13, 2008, Pechanga requested that the Secretary of the Interior seek settlement of the water rights claims involving Pechanga, the United States, and non-Federal third parties through the formation of a Federal Negotiation Team under the Criteria and Procedures for Participation of the Federal Government in Negotiations for the Settlement of Indian Water Rights Claims, 55 Fed. Reg. 9223. The Secretary agreed to form a Federal Negotiation Team on August 1, 2008.

I. Recognizing that final resolution of Pechanga's claims to water rights and injuries to water rights in the Adjudication Proceeding and certain other claims against the United States and other parties may take many years, entail great expense, prolong uncertainty concerning the availability of water supplies, and seriously impair the long-term economic well-being of all Parties, Pechanga, RCWD and the United States, have agreed to settle permanently certain disputes as specified herein, and to seek federal funding, in accordance with applicable law, for the implementation of this Agreement.

J. As part of this settlement, the Parties seek to enhance the capacity for delivery of ESAA Water (as hereinafter defined) as necessary to allow for deliveries to Pechanga, to improve the quality of effluent delivered to Pechanga pursuant to its Recycled Water Agreement with EMWD, and to improve water quality for the Wolf Valley Groundwater Basin.

K. In keeping with its trust responsibility to Indian tribes and to promote tribal sovereignty and economic self-sufficiency, it is the policy of the United States to settle whenever possible water rights claims of Indian tribes without lengthy and costly litigation.

L. The Parties seek to memorialize the settlement among them. The settlement is set forth in this Agreement, which includes the agreements attached as Exhibits that are listed in Section 1.3.

AGREEMENT

In consideration of the respective representations, warranties, covenants and agreements contained in this Agreement, and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, the Parties agree as follows:

1. Interpretation and Construction of Agreement.

1.1 Definitions. Capitalized terms used in this Agreement shall have the meanings set forth below.

"***Act***" means the Pechanga Band of Luiseño Mission Indians Water Settlements Act, Subtitle D of Title III of Public Law 114-322.

"***Adjudication Court***" means the United States District Court for the Southern District of California, which exercises continuing jurisdiction over the Adjudication Proceeding.

"***Adjudication Proceeding***" means litigation initiated by the United States regarding relative water rights in the Santa Margarita River Watershed in *United States v. Fallbrook Public Utility District et al.*, Civ. No. 3:51-cv-01247 (S.D.C.A.), including any litigation initiated to interpret or enforce the relative water rights in the Santa Margarita River Watershed pursuant to the Adjudication Court's continuing jurisdiction over the Fallbrook Decree.

"***AFY***" means acre-feet per Year.

"***Agency Agreement***" means a recorded document by which a real property owner of land located within the RCWD service area has assigned the right to manage any water rights appurtenant to such owner's real property to RCWD for the benefit of all RCWD customers.

"***Agreement***" means this agreement and the Exhibits attached hereto.

"***Allottee***" means an individual who holds a beneficial real property interest in an Indian allotment that is: (A) located within the Pechanga Reservation; and (B) held in trust by the United States.

"***Amended GMA***" means the "Amended and Restated Groundwater Management Agreement" between Pechanga and RCWD, setting forth terms and conditions governing their joint management of groundwater pumping from the Wolf Valley Groundwater Basin, which is hereby incorporated by reference. A copy of the Amended GMA is attached as Exhibit A.

"***Appendix***" means an attachment to this Agreement designated as an Appendix. For clarity, such term does not include Exhibits.

"***Claims***" means rights, claims, demands, actions, compensation or causes of action, whether known or unknown.

"***EMWD***" means Eastern Municipal Water District, a municipal water district organized and existing in accordance with the Municipal Water District Act of 1911, Division 20 of the Water Code of the State of California, as amended.

"***Enforceability Date***" means the date on which the Secretary publishes in the Federal Register the statement of findings described in section 3407(e) of the Act.

"***ESAA Capacity Agreement***" means the "ESAA Capacity Agreement", among Pechanga, RCWD and the United States which is hereby incorporated by reference. A copy of the ESAA Capacity Agreement is attached as Exhibit G.

"***ESAA Water Delivery Agreement***" means the agreement among Pechanga, RCWD and EMWD, establishing the terms and conditions of water service to Pechanga, which is hereby incorporated by reference. A copy of the ESAA Water Delivery Agreement is attached as Exhibit H.

"***Exhibit***" means an exhibit to this Agreement, each of which is hereby incorporated herein by this reference. For clarity, such term does not include any Appendix.

"***Extension of Service Area Agreement***" means the "Extension of Service Area Agreement", among Pechanga, EMWD, and MWD for the provision of water service by EMWD to a designated portion of the Pechanga Reservation using water supplied by MWD, which is hereby incorporated by reference. A copy of the Extension of Service Area Agreement is attached as Exhibit F.

"Fallbrook Decree" means the "Modified Final Judgment And Decree" entered in the Adjudication Proceeding on April 6, 1966, a copy of which is attached to this Agreement as Appendix 1. The term "Fallbrook Decree" includes all court orders, interlocutory judgments and decisions supplemental to the "Modified Final Judgment And Decree", including Interlocutory Judgment No. 30, Interlocutory Judgment No. 35, and Interlocutory Judgment No. 41.

"***Injury to Water Rights***" means an interference with, diminution of, or deprivation of water rights under Federal or State law.

"***Interlocutory Judgment No. 30***" means Interlocutory Judgment No. 30 issued in the Adjudication Proceeding on March 8, 1962, including all court orders, judgments and decisions supplemental to that interlocutory judgment.

"***Interlocutory Judgment No. 35***" means Interlocutory Judgment No. 35 issued in the Adjudication Proceeding on May 8, 1962, including all court orders, judgments and decisions supplemental to that interlocutory judgment.

"***Interlocutory Judgment No. 41***" means Interlocutory Judgment No. 41 issued in the Adjudication Proceeding on November 8, 1962, including all court orders, judgments and decisions supplemental to that interlocutory judgment.

"***Member***" or "***Members***" means any person or persons duly enrolled as members of the Pechanga Band of Luiseño Mission Indians.

"***MWD***" means The Metropolitan Water District of Southern California, a metropolitan water district organized and incorporated under the Metropolitan Water District Act of the State of California (Stats. 1969, Ch. 209, as amended).

"***Party***" means any entity represented by a signatory to this Agreement and "***Parties***" means more than one of such entities. The United States' participation as a Party shall be in the capacity as described in the definition of the term "United States".

"***Pechanga***" means the Pechanga Band of Luiseño Mission Indians, a federally recognized sovereign Indian tribe that functions as a custom and tradition Indian tribe, acting on behalf of itself and its members (but not members in their capacities as Allottees).

"***Pechanga Reservation***" means land depicted on the map attached as Exhibit I. The term "Pechanga Reservation" is solely for the purposes of this Agreement, the Act and any judgment or decree issued by the Adjudication Court approving the Agreement, and not for any of the Exhibits, and shall not be used for any other purpose.

"***Pechanga Water Code***" means a water code to be adopted by Pechanga in accordance with Section 7.

"***RCWD***" means the Rancho California Water District organized pursuant to California Water Code section 34000 *et seq.* and includes all real property owners for whom RCWD acts as an agent pursuant to an Agency Agreement.

"***RCWD Water Rights***" means RCWD's water rights in the Santa Margarita River Watershed, as the successor in interest to the Vail Company, as set forth in Interlocutory Judgment No. 30 and Interlocutory Judgment No. 35.

"***Recycled Water Agreement***" means the "Recycled Water Agreement (Agreement No. 04-07)", dated January 8, 2008, as amended by "Amendment No. 1 to Recycled Water Agreement (Agreement No. 04-07)" between Pechanga and EMWD, providing for the sale and purchase of recycled water, which is hereby incorporated by reference. A copy of the Recycled Water Agreement is attached as Exhibit B.

"***Recycled Water Infrastructure Agreement***" means the "Agreement for Recycled Water Infrastructure" among Pechanga, RCWD, and the United States, which is hereby incorporated by reference. A copy of the Recycled Water Infrastructure Agreement is attached as Exhibit E.

"***Recycled Water Scheduling Agreement***" means the "Agreement for Ordering, Scheduling, Delivery and Payment for Recycled Water" among Pechanga, EMWD and RCWD, which is hereby incorporated by reference. A copy of the Recycled Water Scheduling Agreement is attached as Exhibit D.

"***Recycled Water Transfer Agreement***" means the "Recycled Water Transfer Agreement" between Pechanga and RCWD, which is hereby incorporated by reference. A copy of the Recycled Water Transfer Agreement is attached as Exhibit C.

"***Santa Margarita River Watershed***" means the watershed that is the subject of the Adjudication Proceeding and the Fallbrook Decree.

"***Secretary***" means the Secretary of the United States Department of the Interior.

"***Section***" means a section or subsection of this Agreement.

"***Settlement Coordination Committee***" means the committee of individuals chosen by Pechanga and RCWD to coordinate the activities, actions and obligations established by this Agreement and in the Act.

"State" means the State of California.

"***Tribal Water Right***" means the water rights ratified, confirmed and declared to be valid for the benefit of Pechanga and Allottees, as specifically set forth and described in Section 2.

"***United States***" except as set forth in Section 2.1 hereof, means the United States or the United States of America acting in its capacity as trustee for Pechanga, its Members and Allottees.

"***Wolf Valley Groundwater Basin***" means that groundwater subject to the jurisdiction of the Adjudication Court located beneath Wolf Valley, as depicted in exhibit A-4 of the Amended GMA.

"***Year***" means a calendar year of January through December.

1.2 Construction.

(a) The words "include," "includes," and "including" will be deemed to be followed by "without limitation." The words "this Agreement," "herein," "hereof," "hereby," "hereunder," and words of similar import refer to this Agreement as a whole and not to any particular subdivision unless expressly so limited.

(b) The Section headings contained in this Agreement are inserted for convenience only and shall not affect in any way, and shall not be considered in, the meaning or interpretation of this Agreement.

1.3 Exhibits.

(a) Following is a list of Exhibits included in this Agreement:

Exhibit A: Amended and Restated Groundwater Management Agreement

Exhibit B: Recycled Water Agreement

Exhibit C: Recycled Water Transfer Agreement

Exhibit D: Recycled Water Scheduling Agreement

Exhibit E: Recycled Water Infrastructure Agreement

Exhibit F: Extension of Service Area Agreement

Exhibit G: ESAA Capacity Agreement

Exhibit H: ESAA Water Delivery Agreement

Exhibit I: Map depicting Pechanga Reservation

(b) All of the Parties have reviewed the Exhibits, and no Party shall object to or contest the terms and conditions of the Exhibits in any judicial, administrative or legislative proceedings relating to the approval, interpretation or enforcement of this Agreement.

(c) Amendments to Exhibits shall be governed by, and no Party shall have any right to object to an amendment to an Exhibit except as provided in Section 17.3.

(d) Each Exhibit shall be binding only on the specific parties to such Exhibit.

(e) No Party shall have, by reason of this Agreement, any third-party enforcement or other rights under any Exhibit to which said Party is not a party, unless otherwise provided in the Exhibit.

(f) A definition in an Exhibit shall be confined to the Exhibit in which it appears unless such definition is specifically incorporated by reference in this Agreement or in another Exhibit.

1.4 Appendices.

(a) Following is a list of Appendices attached to this Agreement:

Appendix 1: Fallbrook Decree

Appendix 2: Form of Proposed Judgment and Decree

(b) Each Appendix is attached to this Agreement for informational purposes only and is not incorporated in or made part of this Agreement.

2. Tribal Water Right.

2.1 The Parties, including the United States in all of its capacities (except as trustee for Indian tribes other than Pechanga), ratify, confirm, declare to be valid, and shall not object to, dispute, or challenge in the Adjudication Proceeding, or in any other judicial, legislative or administrative proceeding, the Tribal Water Right as such is further described below.

2.2 A Tribal Water Right of up to 4,994 acre-feet of water per year that, under natural conditions, is physically available on the Reservation is confirmed in accordance with the Findings of Fact and Conclusions of Law set forth in Interlocutory Judgment No. 41, as affirmed by the Fallbrook Decree.

2.3 The Tribal Water Right as set forth in Subsection 2.2 shall be held in trust by the United States on behalf of Pechanga and the Allottees in accordance with this section; include the priority dates described in Interlocutory Judgment No. 41, as affirmed by the Fallbrook Decree; and not be subject to forfeiture or abandonment.

2.4 Subject to the terms of this Agreement, the Act, the Fallbrook Decree, and applicable Federal law, Pechanga may use the Tribal Water Right for any purpose on the Pechanga Reservation.

2.5 Pechanga shall have the right, subject to applicable Federal law, to allocate water to all users on the Pechanga Reservation pursuant to the Pechanga Water Code and manage, regulate, and govern the use on the Pechanga Reservation of the Tribal Water Right in accordance with this Agreement.

2.6 Pechanga and the United States recognize that, pursuant to 25 U.S.C. § 381, Allottees within the Pechanga Reservation are entitled to a just and equitable allocation of water by Pechanga for irrigation and domestic purposes from the Tribal Water Right.

2.7 Pechanga and the United States shall not seek the enforcement of the Tribal Water Right in the Adjudication Proceeding for so long as this Agreement, including all of its Exhibits, remains in force and effect. In the event that this Agreement, or any of its Exhibits, is terminated for any reason, other than expiration of a stipulated term for such agreement, Pechanga and the United States shall have the right to seek enforcement of the Tribal Water Right without limitation. In the event of termination, if Pechanga or the United States seek enforcement of the Tribal Water Right RCWD shall have the right to unilaterally terminate the Amended GMA without further cause.

2.8 Notwithstanding Section 3, in the event that this Agreement, or any of its Exhibits, is terminated for any reason after the Enforceability Date, other than expiration of a stipulated term for such agreement, 1) the Tribal Water Right survives the termination of this Agreement, or any of its Exhibits, and 2) the RCWD Water Rights survive the termination of this Agreement, or any of its Exhibits but the United States and Pechanga shall be able to object to any use of water by RCWD that is not authorized by the otherwise ratified and confirmed RCWD Water Rights.

3. RCWD Water Rights.

The Parties, including the United States, ratify, confirm, and declare to be valid the RCWD Water Rights. Subject to Section 2.8(2) regarding possible objections to unauthorized water use, the United States and Pechanga shall not object to, dispute, or challenge the RCWD Water Rights in the Adjudication Proceeding, or in any other judicial or administrative proceeding.

4. Amended and Restated Groundwater Management Agreement.

Pechanga and RCWD have entered into the Amended GMA, which agreement shall be enforceable in accordance with its terms.

5. Recycled Water Agreements.

5.1 Pechanga and EMWD have entered into the Recycled Water Agreement, which agreement shall be enforceable in accordance with its terms.

5.2 Pechanga and RCWD have entered into the Recycled Water Transfer Agreement, which agreement shall be enforceable in accordance with its terms.

5.3 Pechanga, RCWD and EMWD have entered into the Recycled Water Scheduling Agreement, which agreement shall be enforceable in accordance with its terms.

5.4 Pechanga, RCWD, and the United States have entered into the Recycled Water Infrastructure Agreement, which agreement shall be enforceable in accordance with its terms.

6. ESAA and Related Agreements.

6.1 Pechanga, EMWD and MWD have entered into the Extension of Service Area Agreement, which agreement shall be enforceable in accordance with its terms.

6.2 Pechanga, RCWD, and the United States have entered into the ESAA Capacity Agreement, which agreement shall be enforceable in accordance with its terms.

6.3 Pechanga, EMWD and RCWD have entered into the ESAA Water Delivery Agreement, which agreement shall be enforceable in accordance with its terms.

7. Pechanga Water Code.

7.1 No later than eighteen (18) months after the Enforceability Date, Pechanga shall enact a Pechanga Water Code governing the use of the Tribal Water Right. Any provisions of the Pechanga Water Code affecting the rights or interests of Allottees shall be approved by the

Secretary. The Secretary shall administer the Tribal Water Right until the Pechanga Water Code is enacted and required approvals are obtained from the Secretary, at which time Pechanga shall have authority, subject to the Secretary's authority under section 7 of the Act of February 8, 1887 (25 U.S.C. § 381), to manage, regulate and govern the use of the Tribal Water Right. The Pechanga Water Code shall include, at a minimum, the following provisions, subject to the approval of the Secretary:

(a) that allocations of water to Allottees shall be satisfied with water from the Tribal Water Right;

(b) that charges for delivery of water for irrigation purposes for Allottees shall be assessed on a just and equitable basis;;

(c) a process by which an Allottee may request that the Band provide water for irrigation or domestic purposes in accordance with the Act;

(d) a due process system for the consideration and determination by the Band of any request by an Allottee (or any successor in interest to an Allottee) for an allocation of such water for irrigation or domestic purposes on allotted land, including a process for appeal and adjudication of any denied or disputed distribution of water and resolution of any contested administrative decision;

(e) a requirement that any Allottee with a claim relating to the enforcement of rights of the Allottee under the Pechanga Water Code or relating to the amount of water allocated to land of the Allottee must first exhaust remedies available to the Allottee under tribal law and the Pechanga Water Code before initiating an action against the United States or petitioning the Secretary pursuant to subsection 3405(d)(4) of the Act;

(f) Pechanga's right to prohibit the severance of water rights from allotted lands;

(g) conditions, limitations and permit requirements relating to the storage, recovery and use of any portion of the Tribal Water Right in accordance with this Agreement;

(h) Pechanga's right to regulate the appurtenant right of allotted lands to an allocation of the Tribal Water Right, to ensure the use of such water on such allotted lands is reasonable and beneficial;

(i) a requirement that any Allottee who seeks an authorization to divert or pump water, not otherwise reported by Pechanga, for use on his or her allotment install and maintain, at his or her expense, devices to measure and record such diversion or pumping, and that the Allottee use his or her best efforts to maintain such measuring and recording devices in accordance with industry standards; and

(j) a requirement that the Allottee report to Pechanga at least quarterly the diversions or pumping measured and recorded with the devices required by Section 7.1(h).

7.2 Nothing in this Agreement shall be construed to affect the right of an Allottee or any successor in interest to an Allottee to transfer, convey or lease pursuant and subject to all applicable Federal laws his or her interest in allotted lands, including appurtenant water rights, provided that such water rights remain appurtenant to such allotted lands.

8. Waiver of Claims By Pechanga and the United States Acting in its Capacity as Trustee for Pechanga.

8.1 Subject to the retention of rights set forth in Section 12, in return for recognition of the Tribal Water Right and other benefits as set forth in the Act and this Agreement, Pechanga, and the United States, acting as trustee for Pechanga hereby waive and release all claims for water rights within the Santa Margarita River Watershed that Pechanga, or the United States acting as trustee for Pechanga, asserted or could have asserted in any proceeding, including the Adjudication Proceeding, except to the extent that such rights are recognized in the Act and this Agreement.

8.2 Subject to the retention of rights set forth in Section 12, and notwithstanding any provisions to the contrary in this Agreement, Pechanga and the United States, on behalf of Pechanga and Allottees, fully release, acquit and discharge RCWD from the following Claims:

(a) Claims for Injuries to Water Rights in the Santa Margarita River Watershed for land located within the Pechanga Reservation arising or occurring at any time up to and including June 30, 2009;

(b) Claims for Injuries to Water Rights in the Santa Margarita River Watershed for land located within the Pechanga Reservation arising or occurring at any time after June 30, 2009 resulting from the diversion or use of water in a manner not in violation of this Agreement or the Act;

(c) Claims for subsidence damage to land located within the Pechanga Reservation arising or occurring at any time up to and including June 30, 2009;

(d) Claims for subsidence damage arising or occurring after June 30, 2009 to land located within the Pechanga Reservation resulting from the diversion of underground water in a manner consistent with this Agreement or the Act; and

(e) Claims arising out of, or relating in any manner to, the negotiation or execution of this Agreement or the negotiation or execution of the Act.

9. Waiver of Claims By RCWD.

9.1 Subject to the retention of rights set forth in Section 13, and in return for the ratification, confirmation and declaration to be valid of the RCWD Water Rights and other benefits, including the commitments by Pechanga and the United States as set forth in this Agreement and the Act, RCWD hereby waives and releases all claims for water rights within the Santa Margarita River Watershed that RCWD asserted or could have asserted in any proceeding, including the Adjudication Proceeding, except to the extent that such rights are recognized in the Fallbrook Decree.

9.2 Subject to the retention of rights set forth in Section 13, and in return for the ratification, confirmation and declaration to be valid of the RCWD Water Rights and other benefits, including the commitments by Pechanga and the United States as set forth in this Agreement and the Act, RCWD fully releases, acquits and discharges Pechanga and the United States (solely in its capacity as trustee on behalf of Pechanga and Allottees) from the following Claims:

(a) Claims for Injuries to Water Rights in the Santa Margarita River Watershed for lands located outside the Pechanga Reservation arising or occurring at any time up to and including June 30, 2009;

(b) Claims for Injuries to Water Rights in the Santa Margarita River Watershed for lands located outside the Pechanga Reservation arising or occurring at any time after June 30, 2009 resulting from the diversion or use of the Tribal Water Right or any other water in a manner not in violation of this Agreement or the Act;

(c) Claims for subsidence damage to lands located outside the Pechanga Reservation arising or occurring at any time up to and including June 30, 2009;

(d) Claims for subsidence damage arising or occurring after June 30, 2009 to lands located outside the Pechanga Reservation resulting from the diversion of underground water in a manner not in violation of this Agreement or the Act; and

(e) Claims arising out of or relating in any manner to the negotiation or execution of this Agreement or the negotiation or execution of the Act.

10. Waiver by the United States Acting in Its Capacity as Trustee for Allottees.

Subject to the retention of rights set forth in Section 12, in return for recognition of the Tribal Water Right and other benefits as set forth in the Act and this Agreement, the United States, acting as trustee for Allottees hereby waives and releases all claims for water rights within the Santa Margarita River Watershed that the United States, acting as trustee for the Allottees, asserted or could have asserted in any proceeding, including the Adjudication Proceeding, except to the extent that such rights are recognized in this Agreement and the Act..

11. Waiver by Pechanga as to the United States.

Subject to the retention of rights set forth in Section 12, Pechanga hereby waives and releases:

(a) all Claims against the United States (including the agencies and employees of the United States) relating to claims for water rights in, or water of, the Santa Margarita River Watershed that the United States, acting in its capacity as trustee for Pechanga, asserted, or could have asserted, in any proceeding, including the Adjudication Proceeding, except to the extent that such rights are recognized in the Act and this Agreement;

(b) all Claims against the United States (including the agencies and employees of the United States) relating to damages, losses, or injuries to water, water rights, land, or natural resources due to loss of water or water rights (including damages, losses or injuries to hunting, fishing, gathering or cultural rights due to loss of water or water rights, claims relating to interference with, diversion or taking of water or water rights, or claims relating to failure to protect, acquire, replace, or develop water, water rights or water infrastructure) in the Santa Margarita River Watershed that first accrued at any time up to and including the enforceability date;

(c) all Claims against the United States (including the agencies and employees of the United States) relating to the pending litigation of claims relating to Pechanga's water rights in the Adjudication Proceeding; and

(d) all Claims against the United States (including the agencies and employees of the United States) relating to the negotiation or execution of this Agreement or the negotiation or execution of the Act.

12. Reservation of Rights and Retention of Claims by Pechanga and the United States.

Notwithstanding the waivers and releases authorized in the Act and provided in this Agreement, Pechanga and the United States retain:

(a) all Claims for enforcement of this Agreement and the Act;

(b) all Claims against any person or entity other than the United States and RCWD, including claims for monetary damages;

(c) all Claims for water rights that are outside the jurisdiction of the Adjudication Court;

(d) all rights to use and protect water rights acquired on or after the Enforceability Date of the Act; and

(e) all remedies, privileges, immunities, powers and Claims, including Claims for water rights, not specifically waived and released pursuant to the Act and this Agreement.

13. Reservation of Rights and Retention of Claims by RCWD.

Notwithstanding the waivers and releases provided in this Agreement, RCWD retains:

(a) all Claims for enforcement of this Agreement and the Act;

(b) all Claims against persons other than the Parties;

(c) all Claims for water rights that are outside the jurisdiction of the Adjudication Court;

(d) all rights to use and protect water rights acquired on or after the Enforceability Date of the Act; and

(e) all remedies, privileges, immunities, powers and Claims, including Claims for water rights, not specifically waived and released pursuant to the Act and this Agreement.

14. Limitation of Effect.

Nothing in this Agreement or the Act:

(a) affects the ability of the United States, acting as sovereign, to take actions authorized by law, including any laws relating to health, safety, or the environment, including—

(i) the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.);

(ii) the Safe Drinking Water Act (42 U.S.C. 300f et seq.);

(iii) the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.); and

(iv) any regulations implementing the Acts described in subparagraphs (i) through (iii);

(b) affects the ability of the United States to take actions acting as trustee for any other Indian Tribe or an Allottee of any other Indian tribe;

(c) confers jurisdiction on any State court—

(i) to interpret Federal law regarding health, safety, or the environment;

(ii) to determine the duties of the United States or other parties pursuant to Federal law regarding health, safety, or the environment; or

(iii) to conduct judicial review of Federal agency action; or

(d) waives any claim of a Member of Pechanga in an individual capacity that does not derive from a right of Pechanga;

(e) limits any funding that RCWD would otherwise be authorized to receive under any federal law, including the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h et seq.) as that Act applies to permanent facilities for water recycling, demineralization, and desalination, and distribution of nonpotable water supplies in Southern Riverside County, California;

(f) characterizes any amounts received by RCWD under this Agreement or the Act as Federal for purposes of section 1649 of the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h-32); or

(g) affects the requirement of any Party to this Agreement or any of the Exhibits thereto to comply with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) or the California Environmental Quality Act prior to performing the respective obligations of that Party under this Agreement or any Exhibits to this Agreement.

15. Replacement, Substitution and Satisfaction.

15.1 The benefits provided to Pechanga and Allottees under this Agreement and the Act shall be in complete replacement of, complete substitution for, and full satisfaction of all Claims of Pechanga against the United States that are waived and released pursuant to this Agreement and the Act.

15.2 The benefits realized by the Allottees under this Agreement and the Act shall be in complete replacement of, complete substitution for, and full satisfaction of all Claims that are waived and released pursuant to this Agreement and the Act and any Claims of the Allottees against the United States that the Allottees have or could have asserted that are similar in nature to any claim described in this Agreement or the Act.

15.3 Any entitlement of Pechanga or the United States on behalf of Pechanga and Allottees to water for lands located within the Pechanga Reservation shall be satisfied out of the Tribal Water Right and other benefits granted, confirmed or recognized by Pechanga and the United States on behalf of Pechanga and Allottees by this Agreement and in the Act.

16. Settlement Coordination Committee.

16.1 The Parties shall establish the Settlement Coordination Committee to coordinate the activities, actions and obligations established by this Agreement and in the Act.

16.2 The Settlement Coordination Committee shall be comprised of one (1) individual designated in writing by each Party. Each Party shall provide written notice to all other Parties of the individual designated to represent such Party on the Settlement Coordination Committee.

16.3 The Settlement Coordination Committee shall meet regularly and in the first ten (10) years after the date of enactment of the Act, shall meet no less than every six (6) months. The first meeting shall be held within six (6) months of the date of enactment of the Act.

16.4 The Chair of the Settlement Coordination Committee shall rotate among members every twelve (12) months. The first Chair of the Settlement Coordination Committee shall be the individual designated by Pechanga as its representative to the Settlement Coordination Committee.

17. Other Provisions.

17.1 Other Tribes Not Adversely Affected. Nothing in this Agreement quantifies or diminishes any land or water right, or any Claim or entitlement to land or water, of an Indian tribe, band, or community other than Pechanga.

17.2 Entire Understanding. This Agreement constitutes the entire understanding among the Parties. Evidence of conduct or statements made in the course of negotiating this Agreement, including, but not limited to previous drafts of this Agreement, is inadmissible in any legal proceedings other than one for approval or confirmation of this Agreement.

17.3 Modifications to Agreement and Amendments to Exhibits. No modification of this Agreement shall be effective unless it is in writing, signed by all Parties, and is approved by the Adjudication Court. Notwithstanding the foregoing, Exhibits to this Agreement may be amended by the parties to such Exhibits in accordance with their terms, without court approval, unless such approval is required in the Exhibit or by law; provided, however, that no amendment of any Exhibit may violate any provisions of the Act, or this Agreement, or adversely affect the rights under this Agreement of any Party who is not a signatory of such an amendment.

17.4 Venue. Any Party shall have the right to petition the Adjudication Court for such declaratory or injunctive relief as may be necessary to enforce the terms, conditions, and limitations of this Agreement and monetary relief as provided for in this Agreement.

17.5 Governing Law. This Agreement shall be construed in accordance with applicable Federal law.

17.6 Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the successors and assigns of the Parties.

17.7 Anti-Deficiency Act. The expenditure or advance of any money or the performance of any obligation by the United States, in any of its capacities, under this Agreement shall be contingent upon appropriation of funds therefor. No liability shall accrue to the United States, in any of its capacities, in the event funds are not appropriated.

17.8 No Benefit to Members of Congress or Resident Commissioners. No member of or delegate to Congress or Resident Commissioner shall be admitted to any share of this Agreement or to any benefit that may arise herefrom. This restriction shall not be construed to extend to this Agreement if made with a corporation or company for its general benefit.

17.9 Federal Authority. Subtitle D of Title III of Public Law 114-322 is the Act that authorizes the Federal action required to carry out this Agreement. If any amendment of the Act is enacted prior to the Enforceability Date that materially and adversely affects a Party's rights or interests under this Agreement without the written consent of that Party, then that Party, upon its written notice to all other Parties, shall be relieved of its rights, obligations, and entitlements hereunder; provided, however, that such written notice must be given no later than the Enforceability Date.

17.10 Notices. All notices required to be given hereunder shall be in writing and may be given in person, by facsimile transmission, or by U.S. mail postage prepaid, and shall become effective at the earliest of actual receipt by the Party to whom notice is given, when delivered to the designated address of the Party, or if mailed, forty-eight (48) hours after deposit in the U.S. mail addressed as shown below or to such other address or addressee as such Party may from time to time designate in writing.

If to Pechanga:

Mark Macarro
Chairman
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

With a copy to:

General Counsel
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

And to:

Donald R. Pongrace
Akin Gump Strauss Hauer & Feld LLP
1333 New Hampshire Avenue, NW
Suite 400
Washington, DC 20036

If to the United States:

Assistant Secretary for Indian Affairs
U.S. Department of the Interior
1849 C St. NW, 4660 MIB
Washington, DC 20240-0001

And to:

Regional Director
Pacific Regional Office
Bureau of Indian Affairs
2800 Cottage Way
Sacramento, CA 95825

And to:

Chief, Indian Resources Section
Environment and Natural Resources Division
U.S. Department of Justice
601 D Street, NW
Washington, DC 20004

And to:

Associate Solicitor
Division of Water Resources
1849 C Street, NW MS 6413
Washington, DC 20240

If to RCWD:

General Manager
Rancho California Water District
42135 Winchester Road
Temecula, CA 92590

And to:
James Gilpin
Best Best & Krieger LLP
655 West Broadway
15th Floor
San Diego, CA 92101

17.11 Obligation to Seek Approval and Enforceability of Agreement.

(a) The Parties shall cooperate in seeking approval of this Agreement by the Adjudication Court by jointly filing in the Adjudication Proceeding a proposed judgment and decree in substantially the same form as Appendix 2 to this Agreement.

(b) Each Party shall have the obligation to work in good faith to satisfy the conditions set forth in section 3407(e) of the Act.

(c) Except as provided in Sections 17.11(a) and (b) and in certain Exhibits, no Party, by reason of its execution of this Agreement, shall be required to perform any of the obligations or be entitled to receive any of the benefits under this Agreement until the Enforceability Date.

17.12 Authority to Execute. By signing this Agreement each signatory represents and warrants that he or she has the authority to execute it. Without limitation of the foregoing, RCWD represents that it has full authority under each Agency Agreement to bind the property owner that is party to such Agency Agreement to this Agreement, and RCWD shall, and hereby does, indemnify, defend and hold harmless Pechanga and the United States against any Claim asserted by any such property owner and arising from or in connection with this Agreement.

17.13 Duplicate Originals and Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original, and all of which, when taken together, shall constitute one and the same instrument. This Agreement also may be executed in duplicate originals, each of which shall constitute an original Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement dated as of the date first above written.

PECHANGA BAND OF LUISEÑO MISSION INDIANS

By:_____
Tribal Chairman

Date: 11/29/17

Approved as to form: By:_____

RANCHO CALIFORNIA WATER DISTRICT

By:_____
General Manager

Date: 11/29/17

Approved as to form: By:_____
General Counsel

THE UNITED STATES OF AMERICA

By:_____
Secretary of the Interior

Dated: 29 NOV 17

EXECUTION VERSION

AMENDED AND RESTATED GROUNDWATER MANAGEMENT AGREEMENT

THIS AMENDED AND RESTATED GROUNDWATER MANAGEMENT AGREEMENT (this "***Agreement***") is made and entered into as of November 29, 2017, by and between the **PECHANGA BAND OF LUISEÑO MISSION INDIANS**, a federally recognized Indian Tribe ("***Pechanga***"), which term shall include all individuals and governmental bodies having authority over the assumption or performance of obligations, or the exercise of rights, by Pechanga hereunder) and **RANCHO CALIFORNIA WATER DISTRICT**, a California water district organized pursuant to California Water Code Section 34000, *et seq.* ("***RCWD***"), which term shall include all property owners for whom RCWD acts as an agent pursuant to an Agency Agreement.

RECITALS

A. Pechanga and RCWD entered a "Groundwater Management Agreement", dated December 21, 2006, governing the terms and conditions pursuant to which they will jointly manage groundwater pumping from the Wolf Valley Groundwater Basin in a manner that does not exceed safe yield and that protects groundwater resources in the Wolf Valley Groundwater Basin for present and future uses (the "***Original Agreement***").

B. Pechanga and RCWD agree that the increasing groundwater salinity in the Wolf Valley Groundwater Basin is a matter of increasing concern for water users in the Wolf Valley Groundwater Basin.

C. Under the Act, Congress has authorized a portion of the authorized appropriations to be used by Pechanga to cooperatively develop groundwater desalination activities with RCWD in the Wolf Valley Groundwater Basin in order to mitigate the potential for even higher salinity in the Wolf Valley Basin as a result of the Pechanga Settlement Agreement and its exhibits and activities authorized thereunder.

D. Pechanga and RCWD now desire to amend the Original Agreement to re-define the basis of each Party's Annual Entitlement for purposes of allocation of the Safe Yield; memorialize the initial determination of the Safe Yield; provide for periodic review of the Safe Yield in the future; and cooperatively develop groundwater desalination activities, among other purposes.

E. The intention of the Parties is that, in order to facilitate contract administration, the present Agreement serve as an amendment and restatement of the Original Agreement modified in conformity with section 9.13 of the Original Agreement, such modifications to take effect as from the Amendment Effective Date.

AGREEMENT

In consideration of the respective representations, warranties, covenants and agreements contained in this Agreement, and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, the Parties agree as follows:

1. **Definitions.** Capitalized terms used in this Agreement shall have the meanings set forth below.

"***AAA***" has the meaning set forth in Section 6.5.

"***AAA Rules and Procedures***" has the meaning set forth in Section 6.5.

"***Act***" means the Pechanga Band of Luiseño Mission Indians Water Settlement Act, Subtitle D of Title III of Public Law No. 114-322.

"***AFY***" means acre-feet per Year.

"***Agency Agreement***" means a recorded document by which a real property owner of land located within the RCWD service area has assigned the right to manage any water rights appurtenant to such owner's real property to RCWD for the benefit of all RCWD customers.

"***Amendment Effective Date***" means the date on which the Secretary of the Interior publishes in the Federal Register the statement of findings described in section 3407(e) of the Act;

"Annual Energy Index" means the percentage determined by dividing: (a) the electrical energy costs, expressed in cost per kilowatt hour, incurred by RCWD for electric energy it purchases for groundwater pumping in the Year just prior to the Year for which the Annual Energy Index is being calculated, by (b) the electrical energy costs, expressed in cost per kilowatt hour, incurred by RCWD for electric energy it purchases for groundwater pumping in the Year that is two (2) Years prior to the Year for which the Annual Energy Index is being calculated.

"***Annual Entitlement***" has the meaning set forth in Section 2.1.

"Available Aquifer Capacity" means the capacity within the Wolf Valley Basin for additional groundwater storage as determined from time to time by the Technical Committee pursuant to Section 3.5.2. For each of the first five (5) Years commencing with the Year in which the Amendment Effective Date occurs, the Available Aquifer Capacity shall be eight thousand (8,000) acre feet.

"***Carryover Account***" means an account established by each Party to account for the amount of their respective unused Annual Entitlement, if any, from Year to Year.

"***Decision***" has the meaning set forth in Section 3.4.

"***Delivered Groundwater***" has the meaning set forth in Section 2.2.

"***Delivered Groundwater Charge***" has the meaning set forth in Section 2.2.4.

"***Delivered Groundwater Facilities***" means those facilities required for RCWD to transport and deliver Delivered Groundwater to Pechanga, as specified in Exhibit A-1.

"***Delivered Groundwater Facilities Site***" means any area on which the Delivered Groundwater Facilities will be located, including reasonable lay down areas, as delineated in Exhibit A-2.

"***Delivery Point***" means any point or points at which Delivered Groundwater is delivered to Pechanga under this Agreement. The initial Delivery Point shall be as specified in Exhibit A-1.

"***Dispute***" has the meaning set forth in Section 6.1.

"***EMWD***" means Eastern Municipal Water District, a municipal water district organized and existing in accordance with the Municipal Water District Act of 1911, Division 20 of the Water Code of the State of California, as amended.

"***ESAA Capacity Agreement***" means the "ESAA Capacity Agreement", between Pechanga, RCWD, and the United States which is hereby incorporated by reference. A copy of the ***ESAA Capacity Agreement*** is attached to the Pechanga Settlement Agreement as exhibit G.

"***ESAA Water Delivery Agreement***" means the "ESAA Water Delivery Agreement" among Pechanga, RCWD and EMWD.

"***Exhibit***" means an exhibit to this Agreement, each of which is hereby incorporated herein by this reference.

"***Extension of Service Area Agreement***" means the "Extension of Service Area", among Pechanga, EMWD, and MWD for the provision of water service by EMWD to a designated portion of the Pechanga Reservation using water supplied by MWD, which is hereby incorporated by reference. A copy of the Extension of Service Area Agreement is attached to the Pechanga Settlement Agreement as exhibit F.

"Fallbrook Decree" means the "Modified Final Judgment And Decree", entered in *United States v. Fallbrook Public Utility District,* Civ. No. 1247-SD-C, on April 6, 1966. The

term "Fallbrook Decree" includes all court orders, interlocutory judgments, and decisions supplemental to the "Modified Final Judgment And Decree", including Interlocutory Judgment No. 30 issued on March 8, 1962, Interlocutory Judgment No. 35 issued on May 8, 1962, and Interlocutory Judgment No. 41 issued on November 8, 1962.

"***Granitic Wells***" means wells constructed for purposes of extracting water from granitic material which the Parties have agreed are pumping water from the "basement complex" of the Wolf Valley Groundwater Basin as defined in the Fallbrook Decree and, accordingly, do not affect the Safe Yield.

"***Groundwater Records***" has the meaning set forth in Section 4.3.

"***Groundwater Reports***" has the meaning set forth in Section 4.1.

"***Imported Water***" means any water delivered to Pechanga pursuant to the Extension of Service Area Agreement and the ESAA Water Delivery Agreement.

"***Mediation Procedures***" has the meaning set forth in Section 6.2.

"***Month***" means a calendar Month.

"***MWD***" means The Metropolitan Water District of Southern California, a metropolitan water district organized and incorporated under the Metropolitan Water District Act of the State of California (Stats. 1969, Ch. 209, as amended).

"***MWD Shortage Allocation***" means an action to apportion water pursuant to section 350 of the California Water Code.

"***Original Agreement***" has the meaning set forth in Recital A.

"***Original Effective Date***" means December 21, 2006.

"***Party***" means any entity represented by a signatory to this Agreement and "***Parties***" means more than one of such entities.

"***Pechanga***" means the Pechanga Band of Luiseño Mission Indians, a federally recognized sovereign Indian tribe that functions as a custom and tradition Indian tribe, acting on behalf of itself and its members (but not members in their capacities as Allottees).

"***Pechanga Annual Usage***", with respect to any Year, means the sum of (a) the amount of groundwater pumped by Pechanga from the Basin during such Year, plus (b) the amount of Delivered Groundwater delivered to Pechanga by RCWD pursuant to this Agreement during such Year.

"***Pechanga Settlement Agreement***" means the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Agreement, together with the exhibits thereto. The parties to

the Pechanga Settlement Agreement are the Pechanga Band of Luiseño Mission Indians and its members, the United States on behalf of the Band and its members, and RCWD.

"***RCWD***" means the Rancho California Water District organized pursuant to California Water Code section 34000 *et seq.* and includes all real property owners for whom RCWD acts as an agent pursuant to an Agency Agreement.

"***RCWD Annual Usage***" with respect to any Year, means the remainder of (a) the total amount of groundwater pumped by RCWD from the Basin during such Year, *minus* (b) the amount of Delivered Groundwater delivered to Pechanga by RCWD pursuant to this Agreement during such Year.

"***RCWD Facility Requirements***" means the document entitled "Rancho California Water District Water System Facility Requirements," dated August 1, 1991, a copy of which is attached as Exhibit A-5.

"***Recycled Water Agreement***" means the "Recycled Water Agreement (Agreement No. 04-07)," dated January 8, 2008, as amended by "Amendment No. 1 to Recycled Water Agreement (Agreement No. 04-07)," between Pechanga and EMWD, providing for the sale and purchase of recycled water, which is hereby incorporated by reference. A copy of the Recycled Water Agreement is attached to the Pechanga Settlement Agreement as exhibit B.

"***Recycled Water Infrastructure Agreement***" means the "Recycled Water Infrastructure Agreement," among Pechanga, RCWD, and the United States, which is hereby incorporated by reference. A copy of the Recycled Water Infrastructure Agreement is attached to the Pechanga Settlement Agreement as exhibit E.

"***Recycled Water Scheduling Agreement***" means the "Recycled Water Scheduling Agreement," among Pechanga, EMWD, and RCWD, which is hereby incorporated by reference. A copy of the Recycled Water Scheduling Agreement is attached to the Pechanga Settlement Agreement as exhibit D.

"***Recycled Water Transfer Agreement***" means the "Recycled Water Transfer Agreement", between Pechanga and RCWD, which is hereby incorporated by reference. A copy of the Recycled Water Transfer Agreement is attached to the Pechanga Settlement Agreement as exhibit C.

"***Representative***" has the meaning set forth in Section 3.1.

"***Reservation***" means the reservation of the Pechanga Band of Luiseño Mission Indians, as depicted in the map attached as Exhibit A-3.

"***Right of Way***" means RCWD's easements and rights of way on which the Delivered Groundwater Facilities Site will be located, as delineated in Exhibit A-2.

"***Safe Yield***" means the best professional estimate, following a comprehensive review and analysis of the best available groundwater, hydrologic, and climatic data for the Basin, of the amount of groundwater available for pumping from the Basin in any given Year without causing an undesirable result.

"***Section***" means a section or subsection of this Agreement.

"***Technical Committee***" means the committee of technical experts appointed by the Parties pursuant to Section 3.1.

"***Term***" has the meaning set forth in Section 11.1.

"***Watermaster***" means the Santa Margarita Watermaster, appointed in the case of *United States v. Fallbrook Public Utility District,* Civ. No. 3:51-cv-01247 (S.D.C.A.).

"***Wolf Valley Groundwater Basin***" or "***Basin***" means that groundwater located beneath Wolf Valley as more definitely depicted in Exhibit A-4.

"***Year***" means a calendar year of January through December.

2. Annual Entitlements from the Basin.

2.1 Annual Entitlement. The combined amount of groundwater pumped from the Basin by the Parties in any Year shall not exceed the Safe Yield. In any given Year, each Party shall be entitled to pump no more than its respective percentage share of the Safe Yield, as follows:

RCWD -- twenty-five percent (25%); and

Pechanga -- seventy-five percent (75%);

such respective share of the Safe Yield for each Party being its "***Annual Entitlement***" for purposes of this Agreement.

2.1.1 For each of the first five (5) Years commencing with the Year in which the Amendment Effective Date occurs, the Safe Yield shall be two thousand one hundred (2,100) AFY.

2.1.2 Prior to expiration of the five (5) Year period specified in Section 2.1.1, and prior to expiration of each period of three (3) Years thereafter, for the duration of the Term, the then-current Safe Yield shall be verified or re-determined for purposes of the ensuing three (3) Year period by Decision of the Technical Committee and notified to the Parties.

2.1.3 Water pumped from Granitic Wells shall not be included in determining a Party's usage of its Annual Entitlement. Granitic Wells being operated by Pechanga as of the date of this Agreement are specified in Exhibit A-6.

2.2 Delivered Groundwater. In lieu of actually pumping groundwater itself from the Basin, Pechanga may request RCWD to pump its Annual Entitlement, or any portion thereof, and deliver such water directly to Pechanga, pursuant to Water Code sections 1810 *et seq.* ("***Delivered Groundwater***"); provided, however, that during the "Interim Capacity" as that term is defined in the ***ESAA Capacity Agreement***, RCWD shall not be required to deliver Imported Water and Delivered Groundwater, combined, at a rate in excess of three thousand one hundred (3,100) gallons per minute. Any amount of Delivered Groundwater shall not exceed and shall be subtracted from Pechanga's Annual Entitlement, and shall not be charged against RCWD's Annual Entitlement. With respect to Delivered Groundwater, the following shall apply:

2.2.1 Delivered Groundwater shall be delivered by RCWD to Pechanga at the Delivery Point specified in Exhibit A-1. Pechanga shall have the right at any time to designate other Delivery Points on the Reservation for purposes of delivery and receipt of Delivered Groundwater, subject to the following –

(a) Any new facilities constructed for purposes of any new Delivery Point shall be Delivered Groundwater Facilities for purposes of this Agreement, all other defined terms herein which relate to Delivered Groundwater Facilities shall be construed as referring to such new facilities, and Exhibit A-1 and Exhibit A-2 shall be modified or supplemented as required to reflect the scope and siting of, and any known additional approvals required for, the new Delivered Groundwater Facilities.

(b) This Agreement shall govern Pechanga's and RCWD's rights and obligations with respect to construction and use of such new Delivered Groundwater Facilities. Without limitation of the foregoing, Pechanga shall be responsible for all Delivered Groundwater Facilities Costs incurred with respect to any new Delivered Groundwater Facilities required to be constructed for purposes of establishing any new Delivery Point. Any new Delivered Groundwater Facilities shall be constructed and installed in compliance with the RCWD Facility Requirements, as they may have been amended at the time of such construction and installation.

(c) Pechanga, with RCWD's cooperation and assistance, shall obtain any approvals required for construction, ownership, and operation of new Delivered Groundwater Facilities required for establishment of a new Delivery Point.

2.2.2 RCWD's obligation to deliver Delivered Groundwater to Pechanga pursuant to Section 2.3 shall not commence until the Delivered Groundwater Facilities have been completed and accepted by RCWD in accordance with Section 5.1.

2.2.3 All Delivered Groundwater shall meet the same water quality standards applicable to any delivery of water by RCWD to any customer similarly situated to Pechanga.

2.2.4 For each acre-foot of Delivered Groundwater actually delivered to Pechanga, Pechanga shall pay to RCWD an amount (the "***Delivered Groundwater Charge***"), being the sum of a fixed component and a variable component, determined as follows:

(a) During 2006 and 2007, the fixed component amount was $56.00. In each Year thereafter, the fixed component shall be adjusted by a percentage amount equal to the percentage change in the U.S. Department of Labor, Bureau of Labor Statistics Consumer Price Index for the previous Year.

(b) During 2006 and 2007, the variable component amount was $129.00. In each Year thereafter, the variable component shall equal the well production costs set by RCWD for customers in Pressure Zone 1305.

2.3 RCWD shall deliver a statement to Pechanga with respect to Delivered Groundwater and delivered Imported Water by the tenth (10th) business day of each Month. With respect to Delivered Groundwater and Imported Water delivered during the preceding Month, the statement shall set forth (i) the amount of Delivered Groundwater; (ii) the amount of delivered Imported Water; and (iii) the aggregate Delivered Groundwater Charge. Each statement shall be accompanied by such information as is necessary to enable Pechanga reasonably to determine the accuracy of the statement.

2.3.1 Payments by Pechanga of amounts rightfully payable to RCWD as set forth in a statement rendered pursuant to this Section 2.3 will be made to RCWD no later than thirty (30) business days after the date of the statement. Payment shall be made by wire transfer to such bank account as may be designated in writing from time to time by RCWD, or by such other means as is mutually acceptable to the Parties.

2.3.2 In the event either Party discovers a discrepancy with respect to any statement, such Party shall promptly advise the other Party of such discrepancy. Adjustments for such discrepancies will be reflected on the next statement issued following verification of such discrepancy, but in no event, except in cases of fraud, will an adjustment be made for discrepancies discovered more than thirty-six (36) Months following the date of issuance of the relevant invoice.

2.3.3 Subject to the provisions of Section 2.3.4:

(a) Following commencement of deliveries of Delivered Groundwater, RCWD shall not have the right unilaterally to interrupt or suspend deliveries of Delivered Groundwater to Pechanga in the absence of a final arbitral award issued in accordance with Section 6 permitting such interruption or suspension.

(b) Notwithstanding the provisions of Section 2.3.3(a), RCWD shall have the right to interrupt deliveries of Delivered Groundwater to the extent required to address emergencies involving, or to undertake repairs or maintenance to, the Delivered Groundwater Facilities or other facilities on RCWD's system. RCWD shall notify Pechanga (i) in advance, promptly following the

scheduling of any repairs or maintenance that will cause an interruption of deliveries, and (ii) as soon as reasonably possible following an emergency that has caused an interruption of deliveries.

2.3.4 In the event that RCWD receives written notice from MWD or EMWD objecting to RCWD's delivery of Delivered Groundwater or ESAA Water to Pechanga as being in violation of MWD's statutory authority and its rules and regulations, the following provisions shall apply:

(a) RCWD shall provide a copy of such written notice to Pechanga and shall cooperate with Pechanga in an effort to resolve the issue with MWD, including taking any procedural steps permitted under MWD's rules and regulations to appeal, protest or otherwise address the objection of MWD.

(b) Pechanga reserves the right at all times to litigate the right of RCWD to continue delivering Delivered Groundwater or Imported Water under the terms of this Agreement or the Extension of Service Area Agreement. RCWD (i) will not take any action that may prejudice any right of Pechanga to challenge a determination of MWD that RCWD's delivery of Delivered Groundwater under this Agreement or Imported Water under the Extension of Service Area Agreement is in violation of MWD's statutory obligations or rules and regulations, and (ii) will comply with any final judgment affirming RCWD's right to deliver Delivered Groundwater to Pechanga under this Agreement or Imported Water under the Extension of Service Area Agreement.

(c) RCWD shall continue deliveries of Delivered Groundwater hereunder and Imported Water under the Extension of Service Area Agreement unless and until the earlier of (i) its having received Pechanga's written notification that Pechanga will not challenge (or will not continue to challenge) MWD's determination, or (ii) in the event Pechanga does challenge such determination, issuance of a final judicial determination (following completion of all appeals or expiration of the time for filing appeals) that RCWD does not have the right to continue deliveries of Delivered Groundwater in accordance with this Agreement or Imported Water under the Extension of Service Area Agreement.

(d) In the event deliveries of Delivered Groundwater are discontinued pursuant to Section 2.3.4(c):

(i) Pechanga shall have the right to take groundwater directly from an RCWD well, upon payment of the costs of connecting thereto; and

(ii) provisions of this Agreement will be amended as required to accommodate implementation of such Groundwater source.

2.4 Pechanga Estimate of Pumping, Delivered Groundwater, and Imported Water Needs.

2.4.1 During the Term, Pechanga shall cause to be prepared and delivered to RCWD by the first (1st) business day of each Month, a good-faith estimate of:

(a) the amount of groundwater that Pechanga anticipates it will pump during the then current Month;

(b) the amount of Delivered Groundwater that Pechanga anticipates it will need delivered by RCWD during the then current Month; and,

(c) the amount of Imported Water that Pechanga anticipates it will need delivered by RCWD during the then current Month.

2.4.2 Pechanga shall have no liability to RCWD related to the development by Pechanga or the use by RCWD of such estimates. RCWD shall be entitled to rely on such estimates of Pechanga for purposes of estimating the amount of groundwater from the Wolf Valley Groundwater Basin that is available for RCWD annual usage during such Year. Any RCWD excess pumping or Pechanga excess pumping resulting from reliance on such estimates shall be subject only to reconciliation pursuant to Section 9 and without reference to Pechanga's estimates provided pursuant to Section 2.4.1 with respect to the relevant Year.

3. Technical Committee.

3.1 Composition. A committee of technical experts shall be appointed by the Parties to carry out the responsibilities set forth in this Section 3 (the "***Technical Committee***"). The Technical Committee shall be composed of (a) two (2) persons, one (1) each to be appointed by Pechanga and RCWD, each respectively to serve as the appointing Party's voting representative (each a "***Representative***"), and (b) any other persons appointed by either Party to participate in the Technical Committee meetings on such Party's behalf; provided, however, that only the Representative for each Party shall be authorized to present that Party's position or vote on that Party's behalf with respect to any matter on which the Technical Committee may have to decide. Each Representative shall have one (1) vote. In the event that the position of a Technical Committee member shall fall vacant due to the removal or resignation of such member, such vacancy shall be filled promptly by the appointing Party. If a Representative is unable to perform or is prevented from performing his or her duties, the Party having appointed such Representative shall temporarily designate an alternate Representative.

3.2 Cooperation. The Parties and their representatives shall cooperate in good faith in Technical Committee deliberations and shall supply any information necessary, or requested by the Technical Committee, to facilitate the reaching of agreement and making of Decisions regarding the matters within the responsibility of the Technical Committee as specified in Section 3.5. The Technical Committee shall use all reasonable efforts to reach agreement on the matters within its responsibility under Section 3.5.

3.3 Meetings. The Technical Committee shall hold a minimum of one (1) regular meeting every twelve (12) Months during the Term, at such time and place as shall be agreed by the Representatives, and at which meeting matters subject to Decision under this Agreement, or matters otherwise referred to the Technical Committee for Decision, shall be considered. Either Party may request that an extraordinary meeting of the Technical Committee be held at any other time, upon notice given to the other Party given at least ten (10) business days prior to such meeting and specifying the matter or matters to be considered. The Parties shall

cooperate in good faith to schedule meetings of the Technical Committee at which, at a minimum, both Representatives will be present. Meetings of the Technical Committee shall be chaired alternately by the respective Representatives.

3.4 Decisions. Any approval, recommendation, decision or other action of the Technical Committee (a "***Decision***") shall be by unanimous vote of the voting Representatives. A Decision shall be final if the voting Representatives of both Parties accept such Decision in a written statement signed by such Representatives and delivered to each Party. Such written statement shall include all policies adopted by the Technical Committee and other documentation relevant to the Technical Committee's Decision. In the event that the voting Representatives are unable to reach agreement on any issue on which the Representatives are required to make a Decision, either Party may seek binding arbitration of such issue pursuant to the provisions set forth in Section 6.

3.5 Areas of Responsibility. The Technical Committee shall make Decisions regarding and be responsible for:

3.5.1 considering and verifying or re-determining the Safe Yield at such times as are specified in Section 2.1.2;

3.5.2 considering and verifying or re-determining the Available Aquifer Capacity; and

3.5.3 any other actions or studies assigned to it upon the joint request of the Parties in writing from time to time.

3.6 Costs. Each Party shall bear the costs and expenses (a) associated with the participation of its respective Representative and other designees attending meetings of or otherwise assisting the Technical Committee, and (b) representing one-half of the costs and expenses incurred by the Technical Committee resulting from the conduct of its affairs and the fulfillment of its obligations under Section 3.5.

4. Reporting; Record-Keeping.

4.1 Monthly Groundwater Reports. During the Term and in accordance with the current reporting policies established by the Technical Committee from time to time, each Party shall cause to be prepared and delivered to the other Party reasonably detailed Monthly reports, based on information available to such Party, regarding quantities of Basin groundwater pumped, delivered, received or used by such Party during the preceding Month and the water levels in wells pumped during the preceding Month ("***Groundwater Reports***"). The Groundwater Report prepared by Pechanga shall include a denomination of the amount of Imported Water and the amount of Delivered Groundwater delivered during the previous month. Each Party shall Deliver its Groundwater Report to the other Party on or before the fifteenth (15th) day of the Month following the Month (or partial Month) to which such Groundwater Report relates. Each Party shall provide a copy of each of its reports to the Watermaster for his information. All statements of groundwater amounts pumped from the Basin shall be stated both in the aggregate and separately for each pumping site.

4.2 Annual Groundwater Reports. During the Term each Party shall cause to be

prepared and delivered to the other Party and to the Watermaster, by the thirtieth (30th) day of April of each Year, an annual report providing a summary of the information provided in the Groundwater Reports pursuant to Section 4.1 herein for the preceding Year.

4.3 Groundwater Records. During the Term each Party shall maintain accurate books of account and records of its groundwater testing, delivery (including invoicing), pumping, or receipt (including records of payment) ("***Groundwater Records***"). Copies of any compilations and of all such Groundwater Records shall be retained until the end of the third full Year following the Year in which such compilation was created. All the Groundwater Records shall be the property of the Party that keeps such Groundwater Records. All Groundwater Records of each Party shall be made available to the other Party upon two (2) business days' notice, at the place of business of the Party keeping such Groundwater Records, during the Term and until the end of the third full Year following the Year in which any permitted termination of this Agreement occurs, for examination, audit, inspection, and copying (at no expense to the Party keeping such Groundwater Records) solely for purposes of confirming the due performance of this Agreement and for no commercial purpose.

5. Construction of Water Delivery Infrastructure.

5.1 Requirements and Procedures. Design, engineering, construction, installation, and transfer of new Delivered Groundwater Facilities shall be undertaken in accordance with, and be governed by, the RCWD Facility Requirements and such agreements as are entered by the Parties in compliance therewith. Notwithstanding application of the RCWD Facility Requirements, however, the Parties intend that the following provisions shall apply:

(a) RCWD undertakes to issue a "Notice to Proceed" in accordance with the construction agreement entered pursuant to the RCWD Facility Requirements without undue delay once applicable conditions precedent are met.

(b) Pechanga may select vendors, suppliers and contractors for procurement, design, engineering, construction, and installation of the Delivered Groundwater Facilities in its discretion; provided, however, that the terms of agreements with such contractors are consistent with the RCWD Facility Requirements and, provided, further, that Pechanga shall be primarily responsible to RCWD for the conduct of such contractors while on the Delivered Groundwater Facilities Site or elsewhere on the Right of Way.

(c) RCWD shall provide, or cause to be provided to, Pechanga and its contractors access to the Right of Way and to the Delivered Groundwater Facilities Site for purposes of completion of the Delivered Groundwater Facilities.

(d) Pechanga and RCWD each shall appoint a representative who has primary responsibility for communications and approvals concerning all matters relating to completion of the Delivered Groundwater Facilities.

(e) Inspections by RCWD of completed Delivered Groundwater Facilities that must be undertaken to verify compliance with the RCWD Facility Requirements shall be undertaken without undue delay.

(f) Upon successful completion of inspections verifying compliance of the Delivered Groundwater Facilities with the RCWD Facility Requirements, RCWD shall issue the "Notice of Completion" in accordance with the construction agreement entered pursuant to the RCWD Facility Requirements, and transfer of the Delivered Groundwater Facilities to RCWD shall be completed, without undue delay; provided, however, that subparagraph 5D of the form of Water System Construction Agreement included as "Appendix L" to the RCWD Facility Requirements shall not apply, and Pechanga shall not be required to enter an Agency Agreement with RCWD as a condition to issuance of the "Notice of Completion" or for any other purpose.

(g) Subject only to the provisions of Section 2.2.1, on and after transfer of the Delivered Groundwater Facilities to RCWD, Pechanga will have no further obligation to RCWD to construct and pay for additional facilities for the delivery of Delivered Groundwater, or to repair, maintain, or replace the Delivered Groundwater Facilities.

5.2 Interpretation of Documents. It is intended that the provisions of Section 5.1 be construed in harmony with the RCWD Facility Requirements. In the event of a conflict between the terms of the RCWD Facility Requirements and the provisions of Section 5.1, the provisions of Section 5.1 shall prevail. In any event, the provisions of Section 6 of this Agreement shall apply to any disputes arising between the Parties under or in connection with the RCWD Facility Requirements.

6. Dispute Resolution.

6.1 Amicable Resolution. The Parties agree to attempt to resolve all claims, disputes, controversies, or other matters in question between the Parties arising out of, or relating to, this Agreement, including the deliberation, action, or activity of the Technical Committee ("***Dispute***"), promptly, equitably and in a good faith manner.

6.2 Mediation of Technical Committee Disputes. Notwithstanding any other provision of this Section 6, with respect to any Dispute concerning the determination of Safe Yield or Available Aquifer Capacity by the Technical Committee or any other matter assigned to the Technical Committee by or pursuant to this Agreement, before submitting such Dispute to arbitration, the Parties agree first to try in good faith to settle the dispute by requesting that the Watermaster serve as a mediator to resolve the Dispute by applying the process and rules of the Commercial Mediation Procedures of the American Arbitration Association ("***Mediation Procedures***"). If the Watermaster refuses or is unable to serve as a mediator, the Parties agree that either Party may submit the matter for mediation by the American Arbitration Association pursuant to the Mediation Procedures. If, under the Mediation Procedures, the mediator or either Party terminates the mediation of such Dispute, either Party may submit the Dispute to arbitration pursuant to this Section 6.

6.3 Submission to Arbitration. Either Party may submit any Dispute that cannot be resolved between the Parties to arbitration by written notice to the other Party irrespective of the magnitude thereof, the amount in dispute or whether such Dispute would otherwise be considered justiciable or ripe for resolution by any court or arbitral tribunal. This Agreement and the rights and obligations of the Parties shall remain in full force and effect pending the award in such arbitration proceeding.

6.4 Notice of Arbitration. The notice for arbitration shall be given in accordance with Section 11.7 and shall specify with particularity the nature of the Dispute, the particular provisions of this Agreement that are at issue, and the proposed relief sought by the Party seeking arbitration.

6.5 Appointment of Arbitrators. The arbitration shall be conducted before a panel composed of three (3) arbitrators, each of whom shall be a person familiar, by profession or experience, with the issues in controversy. Within fourteen (14) business days after delivery of a notice of arbitration, each Party shall appoint an arbitrator, obtain its appointee's acceptance of such appointment and deliver written notification of such appointment and acceptance to the other Party. If a Party fails or refuses to select an arbitrator after fourteen (14) calendar days, an arbitrator may be chosen on behalf of such Party by the American Arbitration Association ("*AAA*") and in the manner provided in the American Arbitration Association Commercial Arbitration Rules and Procedures ("***AAA Rules and Procedures***"). Within fourteen (14) days of being appointed, the two (2) Party-appointed arbitrators shall jointly appoint the third (who shall be the chairperson), and shall obtain the acceptance of such appointment and deliver written notification of such appointment to the Parties. If a Party fails to appoint its arbitrator within the specified period, or if the two (2) arbitrators appointed fail to appoint the third arbitrator within a period of fourteen (14) business days after appointment of the second arbitrator, then such arbitrator shall be appointed by the AAA pursuant to the AAA Rules and Procedures.

6.6 Disqualification of Arbitrator. No person may serve as an arbitrator if, because of employment or other relationship with the Parties, the nature of the matter to be arbitrated, or otherwise, such person could not serve as a judge in such matter if such person were a judge.

6.7 Rules of Arbitration. Arbitration shall be conducted pursuant to the AAA Rules and Procedures in effect on the Original Effective Date; provided, however, that any waiver of sovereign immunity shall be governed solely and exclusively by Section 6.16.

6.8 Time. Time is of the essence in the resolution of Disputes pursuant to this Section 6. All deadlines shall be strictly enforced against the Parties.

6.9 Submission of Evidence. Each Party may submit evidence in writing to the arbitrators for their consideration within forty-five (45) calendar days after written notice of the arbitration request has been received.

6.10 Arbitral Hearing. The arbitrators may, in their sole discretion, determine whether a hearing would assist them in rendering a fair and equitable decision. In any event, such hearing, if held, must be held within sixty (60) calendar days after written notice of the arbitration request has been received.

6.11 Conduct of Arbitration. The arbitrators shall comply with and follow to the extent possible the AAA Rules and Procedures with respect to impartiality and independence, and shall render an independent, impartial review of the claim(s) presented, and each arbitrator shall act independently and shall not be either Party's representative. The arbitrators'

deliberations are confidential and shall not be disclosed to third parties. Each arbitrator shall be disqualified as a witness, consultant, or expert for either Party in any Dispute. No written communication shall be made between the arbitrators and a Party without the other Party receiving a copy, and no oral communications shall take place without the other Party being present.

6.12 Arbitral Award. The arbitrators shall render a reasoned decision and award, by majority vote, no later than ninety (90) calendar days after written notice of the arbitration request has been received.

6.13 Arbitral Remedies. The arbitrators may fashion any legal and equitable remedies that they deem necessary to provide appropriate relief to an aggrieved Party, including damages and injunctive relief; provided, however, that in no event shall termination of this Agreement be available as a remedy and the arbitrators shall have no authority to grant such remedy; and, provided, further, that in no event shall either Party be liable for indirect or consequential damages in connection with any breach hereof.

6.14 Enforcement of Arbitral Award. The arbitrators' decision will be final and binding on the Parties, will not be subject to appeal and may be entered as an order in any court of competent jurisdiction in the United States. Each Party agrees to submit to the jurisdiction of any such court for purposes of the enforcement of any such order and for no other purpose. No Party will sue the other except for enforcement of the arbitrators' decision if the other Party is not performing in accordance with the arbitrators' decision. The provisions of this Agreement will be binding on the arbitrators and nothing in this Agreement shall be construed so as to permit the arbitrators to modify this Agreement.

6.15 Costs of Arbitration. The costs of the arbitration shall be shared equally by the Parties, but the Parties shall bear their own costs and attorneys' fees associated with their participation in the arbitration.

6.16 Limited Waiver of Sovereign Immunity. Pechanga hereby provides a strictly limited waiver of its sovereign immunity in any court of competent jurisdiction for the sole and exclusive purpose of enforcement of an arbitration award rendered pursuant to this Section 6. Pechanga does not waive any immunity or other rights it may have under law with respect to claims or causes of action by parties other than RCWD.

7. Future Cooperation.

The Parties shall cooperate in good faith to develop additional potable and non-potable water supplies to satisfy any future needs that Pechanga may have.

8. Representations and Warranties.

8.1 Representations and Warranties of Pechanga. Pechanga represents and warrants to RCWD as follows:

8.1.1 Pechanga's execution, delivery and performance of this Agreement have been duly authorized by all necessary action of the Pechanga Band of Luiseño Mission Indians.

8.1.2 Pechanga is not a party to any agreement, covenant or other agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

8.1.3 This Agreement constitutes a legal, valid, and binding obligation of Pechanga enforceable against it in accordance with its terms.

8.1.4 There is no pending or threatened action or proceeding against or affecting Pechanga before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of Pechanga or the ability of Pechanga to perform its obligations under this Agreement.

8.1.5 To the best of Pechanga's knowledge, the validity of this Agreement, the execution and delivery by it of this Agreement and the performance by it of its obligations hereunder will not require any permit, license, certificate, waiver, notice, approval, consent or similar authorization from any federal, state or local judiciary, regulatory or administrative body.

8.2 Representations and Warranties of RCWD. RCWD represents and warrants to Pechanga as follows:

8.2.1 Its execution, delivery and performance of this Agreement have been duly authorized by all necessary action of RCWD.

8.2.2 Each real property owner pumping groundwater from the Wolf Valley Groundwater Basin within the boundaries of RCWD, other than Pechanga, has entered into an Agency Agreement with RCWD and, with the exception of groundwater pumped by Pechanga, no groundwater from the Wolf Valley Groundwater Basin is pumped by any person, partnership, government or private entity other than RCWD.

8.2.3 RCWD has full authority under each Agency Agreement to bind the real property owner that is party to such Agency Agreement to this Agreement, and RCWD shall, and hereby does, indemnify, defend and hold harmless Pechanga against any rights, claims, demands, actions, compensation or causes of action asserted by any such property owner against Pechanga and arising from or in connection with this Agreement.

8.2.4 RCWD is not a party to any agreement, covenant or other agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

8.2.5 This Agreement constitutes a legal, valid, and binding obligation of RCWD enforceable against it in accordance with its terms.

8.2.6 There is no pending or threatened action or proceeding against or affecting RCWD before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of RCWD or the ability of RCWD to perform its obligation under this Agreement.

8.2.7 To the best of RCWD's knowledge, the validity of this Agreement; the execution and delivery by RCWD of this Agreement; and the performance by RCWD of its obligations hereunder will not require any permit, license, certificate, waiver, notice, approval, consent, or similar authorization from any federal, state or local judicial, regulatory, or administrative body.

8.3 Breach of Representation or Warranty. Any representation or warranty made by a Party in this Section 8 that shall prove to have been incorrect in any material respect as of the Original Effective Date shall be deemed to constitute a material breach of this Agreement by the Party giving such representation or warranty.

9. Carryover Accounts.

9.1 Each Party shall maintain a Carryover Account. Subject to the provisions of this Section 9, each Party shall have the right to credit its own Carryover Account with the balance of any unused portion of such Party's Annual Entitlement in any given Year. Such crediting shall only occur at the end of any given Year after accounting for all groundwater used from the Wolf Valley Groundwater Basin by such Party.

9.2 The total number of credits in both Parties' respective Carryover Accounts in any given Year shall not exceed the then current Available Aquifer Capacity. RCWD shall be entitled to accrue no more than twenty-five percent (25%) of the total number of credits in the then current Available Aquifer Capacity. Pechanga shall be entitled to accrue no more than seventy-five percent (75%) of the total number of credits in the then current Available Aquifer Capacity.

9.3 If the Technical Committee were to reduce the Available Aquifer Capacity in a given Year such that either RCWD or Pechanga were to then be holding more credits than otherwise allowed under their respective portion of the Available Aquifer Capacity, the Party in excess may retain such credits for a period of no more than three (3) additional years, provided that such Party use at least thirty-three percent (33%) of the excess credits in its Carryover Account each Year thereafter until such time as the total number of credits is within the allowed maximum for such Party. If such Party does not use at least thirty-three percent (33%) of the excess credits in its Carryover Account in a given Year, then such excess credits shall be deducted from such Party's Carryover Account at the end of such Year.

9.4 RCWD may use any credits in its Carryover Account in excess of two hundred (200) acre feet of credits, up to a maximum of four hundred (400) acre-feet, as supplemental water supply in any given Year.

9.5 Pechanga may use any credits in its Carryover Account in excess of eight hundred (800) acre feet of credits, up to a maximum of one thousand six hundred (1,600) acre- feet, as supplemental water supply in any given Year.

9.6 During a period of MWD Shortage Allocation, either Party may use the credits in its Carryover Account as a supplemental supply of water without reference to the limits set forth in Sections 9.4 and 9.5.

9.7 In the event that a Party has no credits in its Carryover Account, and such Party

exceeds its Annual Entitlement in a given Year, then the amount of such Party's Annual Entitlement for the succeeding Year shall be reduced by the amount of its excess pumping in such Year.

10. Groundwater Desalination Activities.

10.1 Pechanga and RCWD shall meet and confer on a cooperative basis to cooperatively plan desalination activities in the Wolf Valley Groundwater Basin.

10.2 Pechanga may use the funds available from Section 3411(a)(4) of the Act to fund its contribution, if any, to such groundwater desalination activities in the Wolf Valley Groundwater Basin.

11. Miscellaneous Provisions.

11.1 Perpetual Term. The term of this Agreement (the "***Term***") shall commence on the Amendment Effective Date and shall remain in effect in perpetuity. This Agreement may be terminated exclusively (i) by mutual agreement of the Parties in a writing signed by both Parties; or (ii) by operation of contract pursuant to Section 11.2. Termination of this Agreement shall not be available as a remedy for a Party's breach.

11.2 Termination for Dissolution. This Agreement shall automatically terminate and be of no further force or effect, without further action required by Pechanga, in the event that (a) RCWD or any regulator takes any action (i) to legally dissolve RCWD, or (ii) to discontinue or otherwise cease the operations or functions of RCWD, whether in whole or in part, in the capacity that they are performed by RCWD on the Original Effective Date; or (b) RCWD becomes unable to perform its obligations under this Agreement as a result of action of a regulator or a court of competent jurisdiction.

11.3 Release of Information. All press releases relating to this Agreement or the implementation of the transactions hereunder, and the method of the release for publication thereof, will be subject to the prior approval of both Parties, which approval shall not be unreasonably withheld.

11.4 Assignment. Neither Party may assign either this Agreement or any of its rights, interests or obligations hereunder without the prior written approval of the other Party, provided, however, that Pechanga may assign this Agreement without the prior consent of RCWD to another tribal entity of the Pechanga Band of Luiseño Mission Indians if the assignee assumes all of Pechanga's obligations under this Agreement and otherwise agrees to be bound by and consents to each of the provisions of this Agreement.

11.5 Third Parties. This Agreement shall not be binding upon, inure to the benefit of, or confer rights upon any person or entity that is not a Party to this Agreement.

11.6 Entire Agreement. This Agreement, together with the Exhibits, constitutes the entire agreement and understanding of the Parties in respect of the subject matter hereof and supersedes all prior understandings, agreements, statements, contracts or representations by or among the Parties and their agents, written or oral, to the extent they relate in any way to the subject matter hereof.

11.7 Notice. All notices, requests, payments, reports and other communications provided for or permitted to be given or made under this Agreement must be in writing and must be given by personal delivery, or by certified or registered United States mail (postage prepaid, return receipt requested), addressed as follows or addressed to such other address or addressee as the Party to receive such notice shall have designated by written notice as required by this Section 11.7. Notice or payment shall be deemed to have been effective and properly delivered or made on the earlier of (a) if given by personal delivery, the date of actual delivery, (b) if sent by certified or registered mail, the first business day that is at least four (4) calendar days after the notice or payment has been deposited in the U.S. mails in accordance with this Section 11.7:

As to Pechanga:

Mark Macarro
Chairman
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

With a copy to:
General Counsel
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

and to:

Donald R. Pongrace
Akin Gump Strauss Hauer & Feld LLP
1333 New Hampshire Avenue, NW
Suite 400
Washington, DC 20036

As to RCWD:
General Manager
Rancho California Water District
42135 Winchester Road
Temecula, CA 92590

With a copy to:

James Gilpin
Best Best & Krieger LLP
655 West Broadway, 15th Floor
San Diego, CA 92101

11.8 Service of Process. Any Party may make service on any other Party by sending

a copy of the process by certified U.S. mail, as provided under Federal Rules of Procedure 4(d), to the Party to be served at the address and in the manner provided for the giving of notices in Section 11.7.

11.9 Construction. This Agreement has been freely and fairly negotiated among the Parties. If an ambiguity or question of intent or interpretation arises, this Agreement will be construed as if drafted jointly by the Parties and no presumption or burden of proof will arise favoring or disfavoring any Party because of the authorship of any provision of this Agreement. The words "include," "includes," and "including" will be deemed to be followed by "without limitation." The word "person" includes individuals, entities, regulators and other governmental bodies. The words "this Agreement," "herein," "hereof," "hereby," "hereunder," and words of similar import refer to this Agreement as a whole and not to any particular subdivision unless expressly so limited.

11.10 Headings. The Section headings contained in this Agreement are inserted for convenience only and shall not affect in any way, and shall not be considered in, the meaning or interpretation of this Agreement.

11.11 Amendments; Waivers. No amendment, modification, waiver, replacement, termination or cancellation of any provision of this Agreement will be valid, unless the same is in writing and signed by Pechanga and RCWD. No waiver by a Party of any breach by the other Party of any of the terms or conditions of this Agreement, or of any right of such Party hereunder, shall be construed as a waiver of any subsequent breach by the other Party of the same or other terms or conditions, or of the future exercise by such Party of the same or any other right hereunder. Neither the failure nor any delay on the part of a Party to exercise any right or remedy under this Agreement will operate as a waiver thereof, nor does any single or partial exercise of any right or remedy preclude any other or subsequent exercise of the same or of any other right or remedy.

11.12 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of California, without regard to any choice of laws or conflicts of laws provisions which would direct the application of the laws of any other jurisdiction. The venue for arbitration proceedings shall be Riverside County, California.

11.13 Severability. The provisions of this Agreement will be deemed severable and the invalidity or unenforceability of any provision will not affect the validity or enforceability of the other provisions hereof; provided, however, that, if any provision of this Agreement, as applied to a Party or to any circumstance, is determined not to be enforceable in accordance with its terms, the Parties agree that the provision may be modified in a manner consistent with its objectives such that it is enforceable, and/or specific words or phrases may be deleted, and in its modified form, such provision will then be enforceable and will be enforced.

11.14 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be considered an original but all of which, taken together, shall constitute one and the same instrument.

11.15 Effectiveness of Agreement. This Agreement shall become effective on the Amendment Effective Date. Until the Amendment Effective Date, the Original Agreement shall

remain in effect and shall continue to govern the rights and obligations of the Parties.

11.16 Termination. If the Pechanga Settlement Agreement is not approved or otherwise terminated, all related agreements, attached as exhibits thereto, including this Agreement, and the Parties' obligations thereunder are automatically terminated and the Original Agreement shall remain in effect and shall govern the rights and obligations of the Parties.

[SEPARATE SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF:

Rancho California Water District has caused this Amended and Restated Groundwater Management Agreement to be executed by its duly authorized representative as of the date first above written.

RANCHO CALIFORNIA WATER DISTRICT

By: _____

Name: Stephen J. Corona

Title: General Manager

AND ***[Tribe Signature Follows]***

IN WITNESS WHEREOF:

The Pechanga Band of Luiseño Mission Indians has caused this Amended and Restated Groundwater Management Agreement to be executed by its duly authorized representative as of the date first above written.

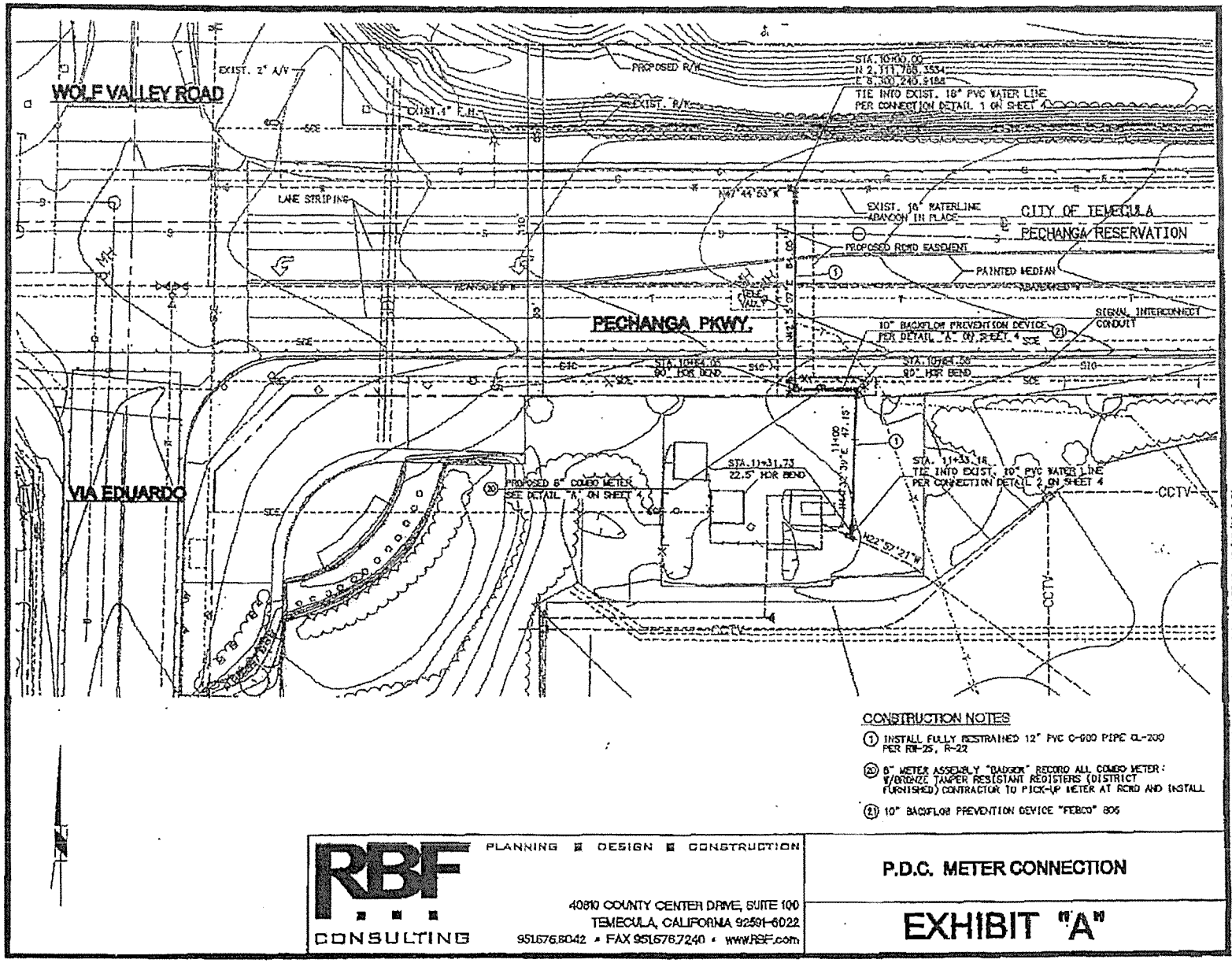
PECHANGA BAND OF LUISEÑO MISSION INDIANS

By: _____

Name: MARK MACARRO

Title: Chairman

Exhibit A-1



RBF CONSULTING
PLANNING ■ DESIGN ■ CONSTRUCTION
40810 COUNTY CENTER DRIVE, SUITE 100
TEMECULA, CALIFORNIA 92591-6022
951.676.8042 • FAX 951.676.7240 • www.RBF.com

P.D.C. METER CONNECTION

EXHIBIT "A"

H:\PDATA\1610150\CADD\WATER\EXHIBITS\1659-EXHIBIT_A.DWG FAHOBINO 12/20/06 12:51 pm

Exhibit A-2

EXHIBIT "B"

RCWD
WATER EASEMENT

That portion of Lot "E" of Little Temecula Rancho (Pechanga Indian Reservation) in Unincorporated Territory of the County of Riverside, State of California, as set apart in the Decree of Partition Recorded June 28, 1892 in Book 199, Page 454 of Deeds, Records of San Diego County, California, included within a strip of land 12.00 feet in width the centerline of said strip being described as follows:

COMMENCING at the centerline intersection of Via Eduardo with Pechanga Parkway (Pala Road) as shown on the map filed in Book 112, Pages 55 and 56 of Records of Survey in the office of the County Recorder of said Riverside County;

thence along the centerline of said Pechanga Parkway (Pala Road) South 47°44'32" East 216.90 feet to the **TRUE POINT OF BEGINNING;**

thence South 42°15'18" West 49.00 feet;

thence South 47°44'32" East 26.45 feet to the **POINT OF TERMINATION.**

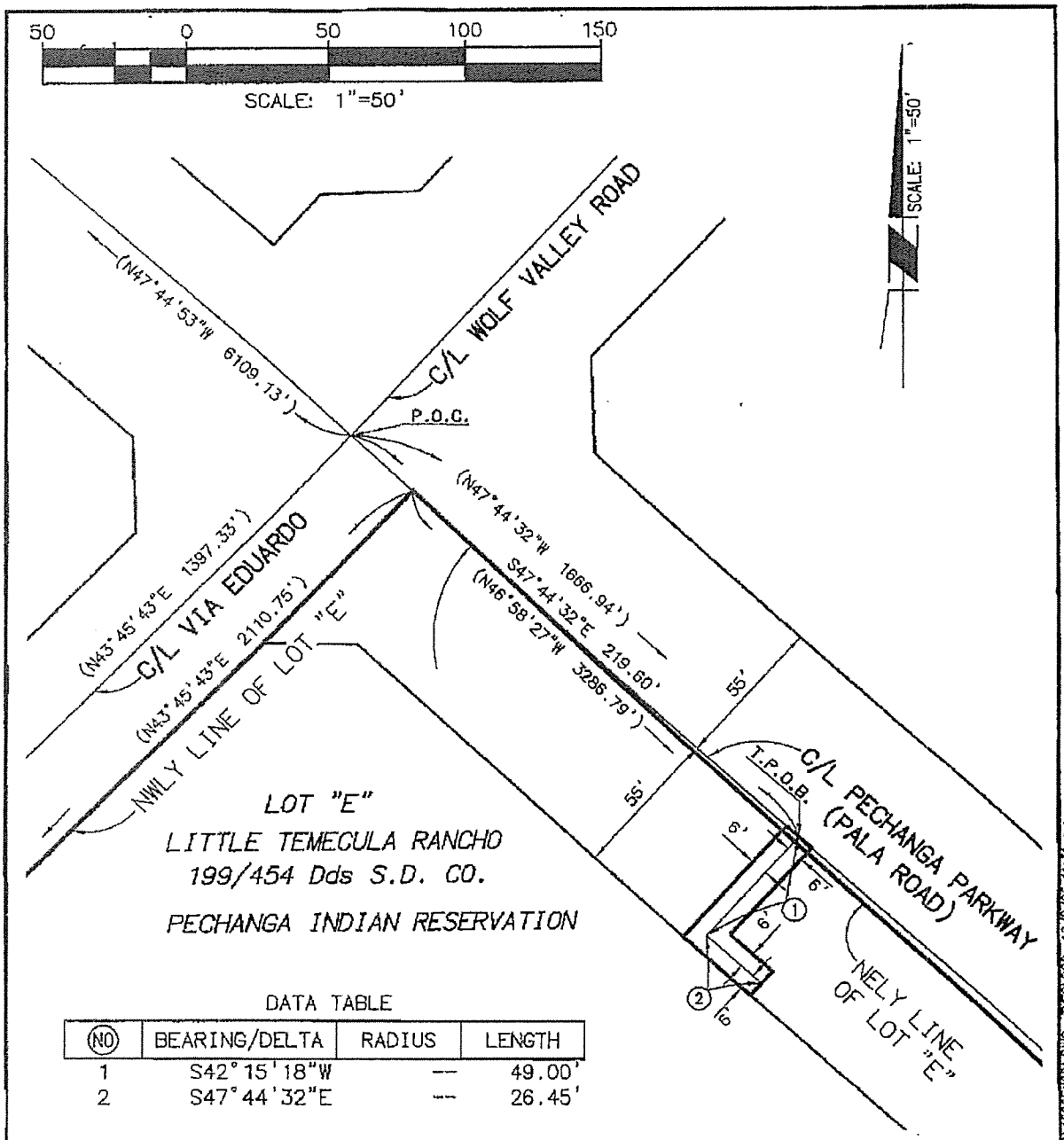
CONTAINING: 905 square feet, more or less.

EXHIBIT "B" attached hereto and by this reference made a part hereof.

This description was prepared by me or under my direction.

Thomas E. Verloop, RLS 5348, Date: 12/8/2006
My license expires 12/31/07





DATA TABLE

(N0)	BEARING/DELTA	RADIUS	LENGTH
1	S42°15'18"W	--	49.00'
2	S47°44'32"E	--	26.45'

( ) = INDICATES RECORD DATA PER RECORD OF SURVEY 112/55-56.

EXHIBIT "B"
RCWD
WATER EASEMENT

RBF CONSULTING

PLANNING ■ DESIGN ■ CONSTRUCTION

40810 COUNTY CENTER DRIVE, SUITE 100
TEMECULA, CALIFORNIA 92591-6022
951.676.8042 • FAX 951.676.7240 • www.RBF.com

DECEMBER 08, 2006	SCALE 1"=50'	JOB NO. 15101569-M1

H:\PROJECTS\15101569\CADD\MAPPING\1569EX001.DWG 12/8/06 11:31 am

RBF CONSULTING

JOB ID : 15101569 DATE 12/08/2006 AT 11:51:23
FILE NAME : H:\PDATA\15101569\CADD\MAPPING\1569EX001.TRV

TRAVERSE OF : water easement CL - open -- TRAV # 1

BEARING	DISTANCE		NORTHING	EASTING		
	STARTING	AT	2111927.8720	6300070.9850	PT #	2019
S 47-44-32.00 E	219.6000	TO	2111780.1982	6300233.5169	PT #	2020
S 42-15-28.00 W	49.0000	TO	2111743.9320	6300200.5660	PT #	2021
S 47-44-32.00 E	26.4500	TO	2111726.1452	6300220.1423	PT #	2022

ERROR OF CLOSURE NORTH = 0.0038192 EAST = -0.0042732
BEARING N 48-12-40.00 W DISTANCE = 0.0057
(OPEN TRAVERSE) AREA = 0.0 SF 0.0000 ACRES

RBF CONSULTING

JOB ID : 15101569 DATE 12/08/2006 AT 11:51:23
FILE NAME : H:\PDATA\15101569\CADD\MAPPING\1569EX001.TRV

TRAVERSE OF : Water Easement area -- TRAV # 2

BEARING	DISTANCE		NORTHING	EASTING		
	STARTING	AT	2111784.2361	6300229.0726	PT #	2025
S 47-44-32.00 E	12.0000	TO	2111776.1665	6300237.9542	PT #	2026
S 42-15-28.00 W	43.0000	TO	2111744.3410	6300209.0381	PT #	2027
S 47-44-32.00 E	20.4500	TO	2111730.5890	6300224.1737	PT #	2028
S 42-15-28.00 W	12.0000	TO	2111721.7075	6300216.1041	PT #	2023
N 47-44-32.00 W	32.4500	TO	2111743.5291	6300192.0869	PT #	2024
N 42-15-28.00 E	55.0000	TO	2111784.2361	6300229.0726	PT #	2025

ERROR OF CLOSURE NORTH = 0.0000000 EAST = 0.0000000
BEARING N 90-00-00.00 E DISTANCE = 0.0000
AREA = 905.4 SF 0.0208 ACRES
PERIMETER = 174.9000

2002-159926 RS 112/55-56
ORIGINAL

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

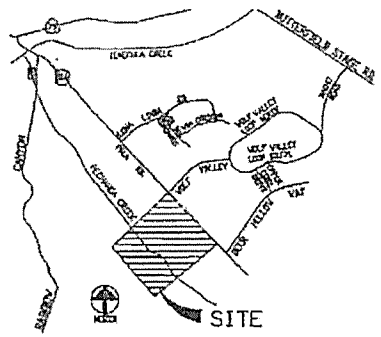
RECORD OF SURVEY

SHEET 1 OF 2 SHEETS

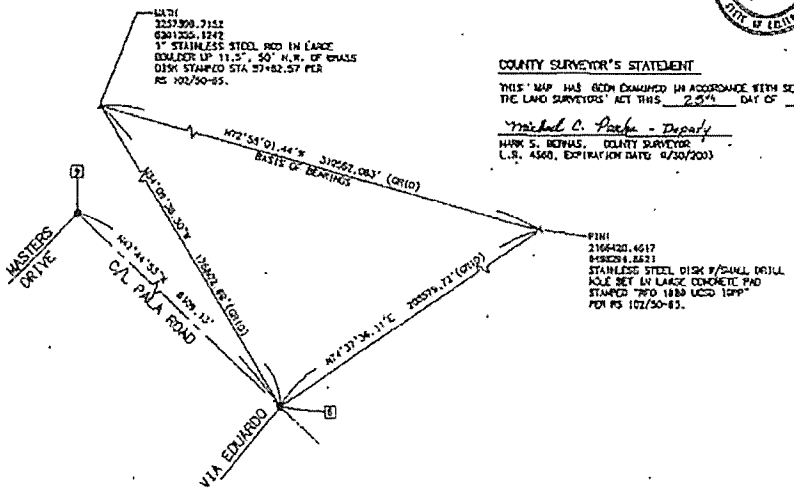
LOT "E" OF LITTLE TEMECULA RANCHO AS SET APART IN THE DECREE OF PARTITION RECORDED JUNE 28, 1882 IN BOOK 199, PAGE 454 OF DEEDS, RECORDS OF SAN DIEGO COUNTY, CALIFORNIA.

RBF CONSULTING

JUNE, 2001



VICINITY MAP
N.T.S.



SURVEYOR'S STATEMENT

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS' ACT AT THE REQUEST OF PECHANGA DEVELOPMENT CORPORATION, IN FEBRUARY OF 2001.

DATE: MARCH 14, 2002

WILLIAM L. BOWEN, L.S. 4547
EXPIRES: 09-30-02

WILLIAM L. BOWEN — No. 4547 — Exp. 9/30/02 — STATE OF CALIFORNIA

COUNTY SURVEYOR'S STATEMENT

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE LAND SURVEYORS' ACT THIS 25th DAY OF March, 2002.

Michael C. Parks - Deputy

MARK S. BERNAS, COUNTY SURVEYOR
L.S. 4560, EXPIRATION DATE: 9/30/2003

RECORDER'S STATEMENT

FILED THIS 28th DAY OF March, 2002, AT 8:00 A.M. IN BOOK 112 OF RECORDS OF SURVEY, AT PAGES 55 & 56 AT THE REQUEST OF THE COUNTY SURVEYOR.
NO. 2002-159926
FEE: N.F. 00

GARY L. ORSO, COUNTY ASSESSOR-CLERK-RECORDER.

BY: A. Palacios Jr., DEPUTY

BASIS OF BEARINGS NOTE

THE BEARINGS FOR THIS SURVEY ARE BASED ON THE LINE BETWEEN STATIONS "PINT" AND "MATH" (POSITIONS PER NATIONAL GEODETIC SURVEY), GRS80 ELLIPSOID, GCS83, EPOCH 1995.5) AS SHOWN ON THE MAP FILED IN BOOK 102, PAGES 50 THROUGH 65 OF RECORDS OF SURVEYS IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY, CALIFORNIA, BEING N72°55'01.44"W.

NOTES: ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES, UNLESS OTHERWISE NOTED. TO OBTAIN GRID DISTANCES, MULTIPLY GROUND DISTANCES BY AN AVERAGE COMBINATION FACTOR OF 0.99990945.

MONUMENT NOTES

- ⊙ INDICATES FOUND MONUMENT AS NOTED AND REFERENCED HEREON.
- [1] FOUND 2-1/2" BRASS DISK STAMPED "T8S R2W LTR LOT 5 1992" PER BLM SURVEY OF LOT "E" CERTIFIED 12/18/97.
- [2] FOUND 2-1/2" BRASS DISK STAMPED "RP T8S R2W LTR S28 1984" PER BLM SURVEY OF LOT "E" CERTIFIED 12/18/97.
- [3] FOUND 1" IP W/NAIL AND ILLEGIBLE TAG, DOWN 1.4', NO REFERENCE; ACCEPTED AS ANGLE POINT IN STREET C/L PER RS 83/63-75; SET 1-1/2" SOPPERCLAD LONGNOSE STAMPED "LS 4547", FLUSH.
- [4] FOUND BRASS DISK STAMPED "TCC 25837", FLUSH, PER TRACT NO. 18929-2, MB 170/3-9.
- [5] FOUND RAIL SET NAIL WITH PUNCH MARK, FLUSH, NO REFERENCE.
- [6] FOUND 1" IP WITH ILLEGIBLE TAG, FLUSH, NO REFERENCE; SET TAG "LS 4547". ACCEPTED AS CENTERLINE INTERSECTION.
- [7] FOUND 2" BRASS DISK IN TOP OF 3" HIGH GRANITE ROCK, STAMPED "1993, LTR, T8S, R2W, LOT E" PER BLM SURVEY OF LOT "E" CERTIFIED 12/18/97.
- [8] FOUND 2' HIGH GRANITE ROCK WITH CHISELED "+", UP 2.0', PER BLM SURVEY OF LOT "E" CERTIFIED 12/18/97.
- [9] FOUND PK WITH WASHER STAMPED "LS 4263", FLUSH, NO REFERENCE; ACCEPTED AS CENTERLINE INTERSECTION.
- [10] FOUND 1" IP (TAG MISSING), DOWN 0.5', NO REFERENCE.
- [11] FOUND 2" IP WITH TAG "LS 2632", DOWN 0.8, PER RS 60/94.
- [12] FOUND 1" IP (TAG MISSING), UP 0.3', PER PM NO. 13340, PMB 111/14.
- [13] FOUND 1" IP (TAG MISSING), UP 0.2', PER PM NO. 13340, PMB 111/14.
- [14] FOUND 2-1/2" IP WITH 3-1/2" BRASS DISK STAMPED "RP T8S, R2W, 1992, LTR, S28", UP 0.5', PER BLM SURVEY OF LOT "E" CERTIFIED 12/18/97.
- [15] FOUND 3/4" IP (TAG MISSING), DOWN 2.2', PER RS 83/63-75.
- [16] FOUND 3/4" IP W/ILLEGIBLE TAG, DOWN 2.0', PER RS 83/63-75.

SURVEYOR'S NOTES

( ) RECORD DATA PER PARCEL MAP NO. 11533, PMB 63/04-05.
RECORD DATA PER BLM SURVEY OF LOT "E" CERTIFIED 12/18/97.

70,19 -05-2V

RIV. CO. 01-065

2002-159926
ORIGINAL
112
56

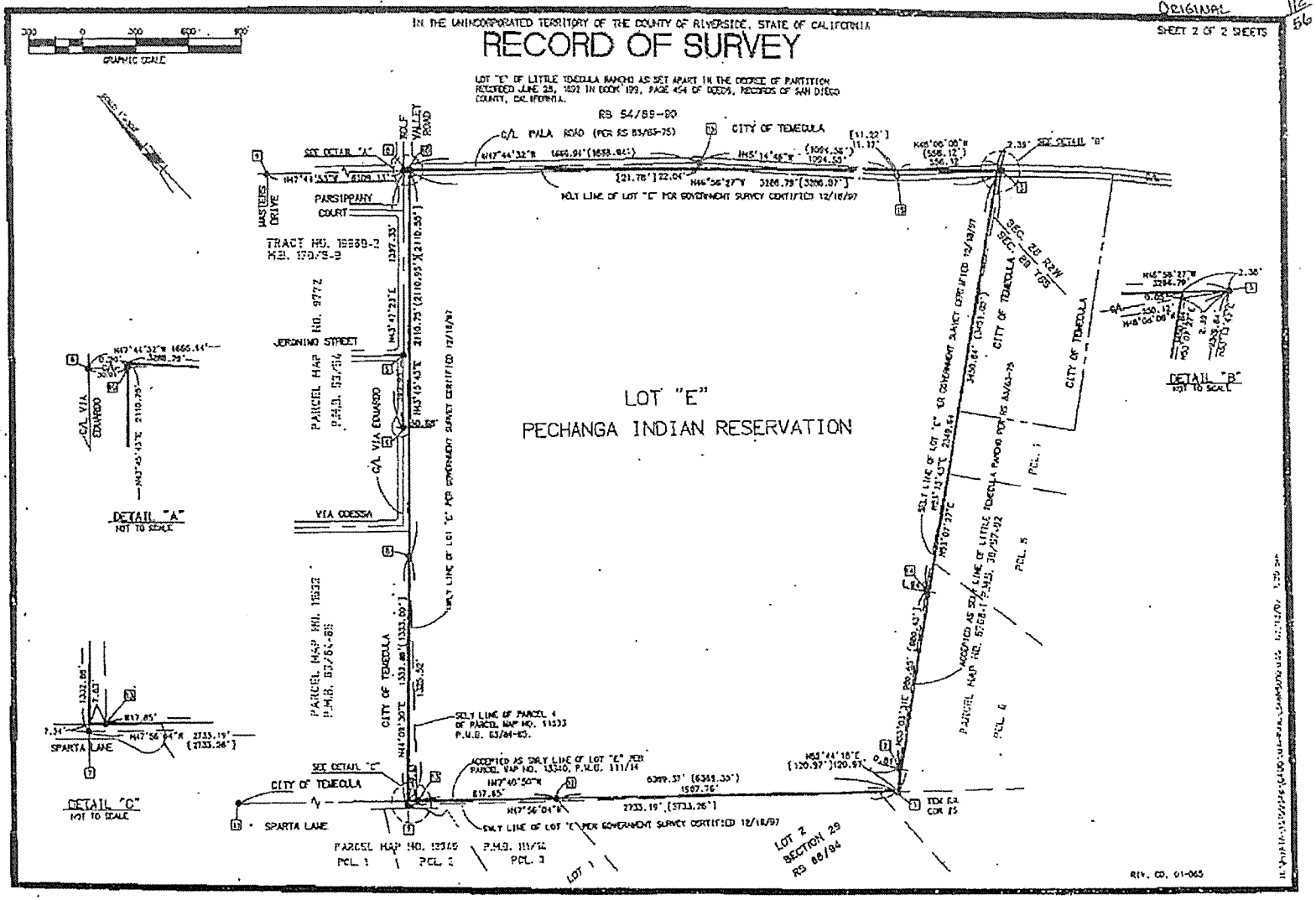


Exhibit A-3

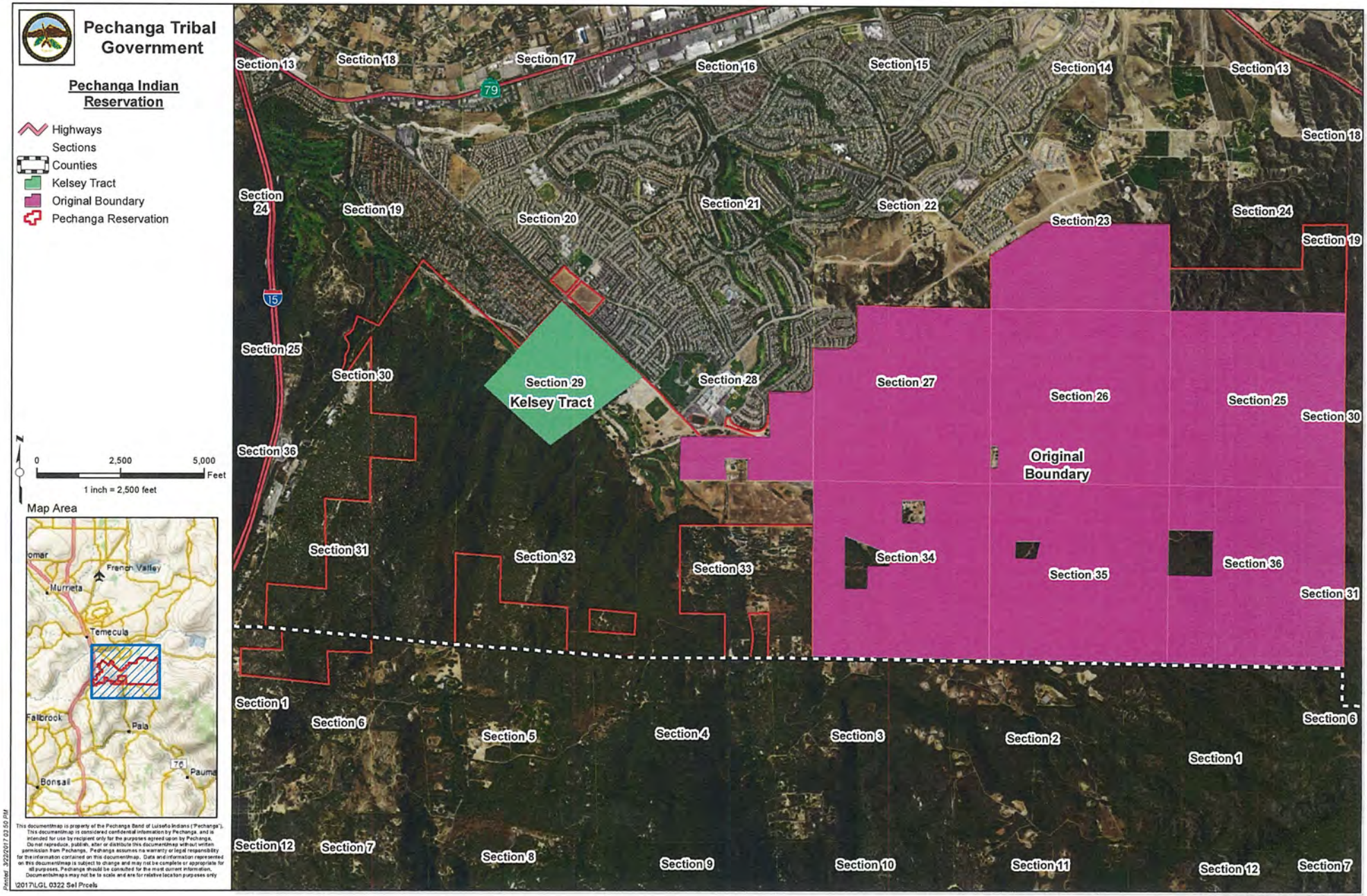

Pechanga Tribal Government
Pechanga Indian Reservation
Highways
Sections
Counties
Kelsey Tract
Original Boundary
Pechanga Reservation
0
2,500
5,000
Feet
1 inch = 2,500 feet
Map Area
Section 13
Section 18
Section 17
Section 16
Section 15
Section 14
Section 13
Section 18
Section 24
Section 19
Section 20
Section 21
Section 22
Section 23
Section 24
Section 19
Section 25
Section 30
Section 29
Kelsey Tract
Section 28
Section 27
Section 26
Section 25
Section 30
Section 36
Original Boundary
Section 31
Section 32
Section 33
Section 34
Section 35
Section 36
Section 31
Section 1
Section 6
Section 5
Section 4
Section 3
Section 2
Section 1
Section 6
Section 12
Section 7
Section 8
Section 9
Section 10
Section 11
Section 12
Section 7
Temecula
Murrieta
French Valley
Fallbrook
Pala
Bonsall
Pauma
This documentmap is property of the Pechanga Band of Luiseño Indians ('Pechanga'). This documentmap is considered confidential information by Pechanga, and is intended for use by recipient only for the purposes agreed upon by Pechanga. Do not reproduce, publish, alter or distribute this documentmap without written permission from Pechanga. Pechanga assumes no warranty or legal responsibility for the information contained on this documentmap. Data and information represented on this documentmap is subject to change and may not be complete or appropriate for all purposes. Pechanga should be consulted for the most current information. Documentsmaps may not be to scale and are for relative location purposes only
\2017\LGL 0322 Sel Prcels
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Exhibit A-4

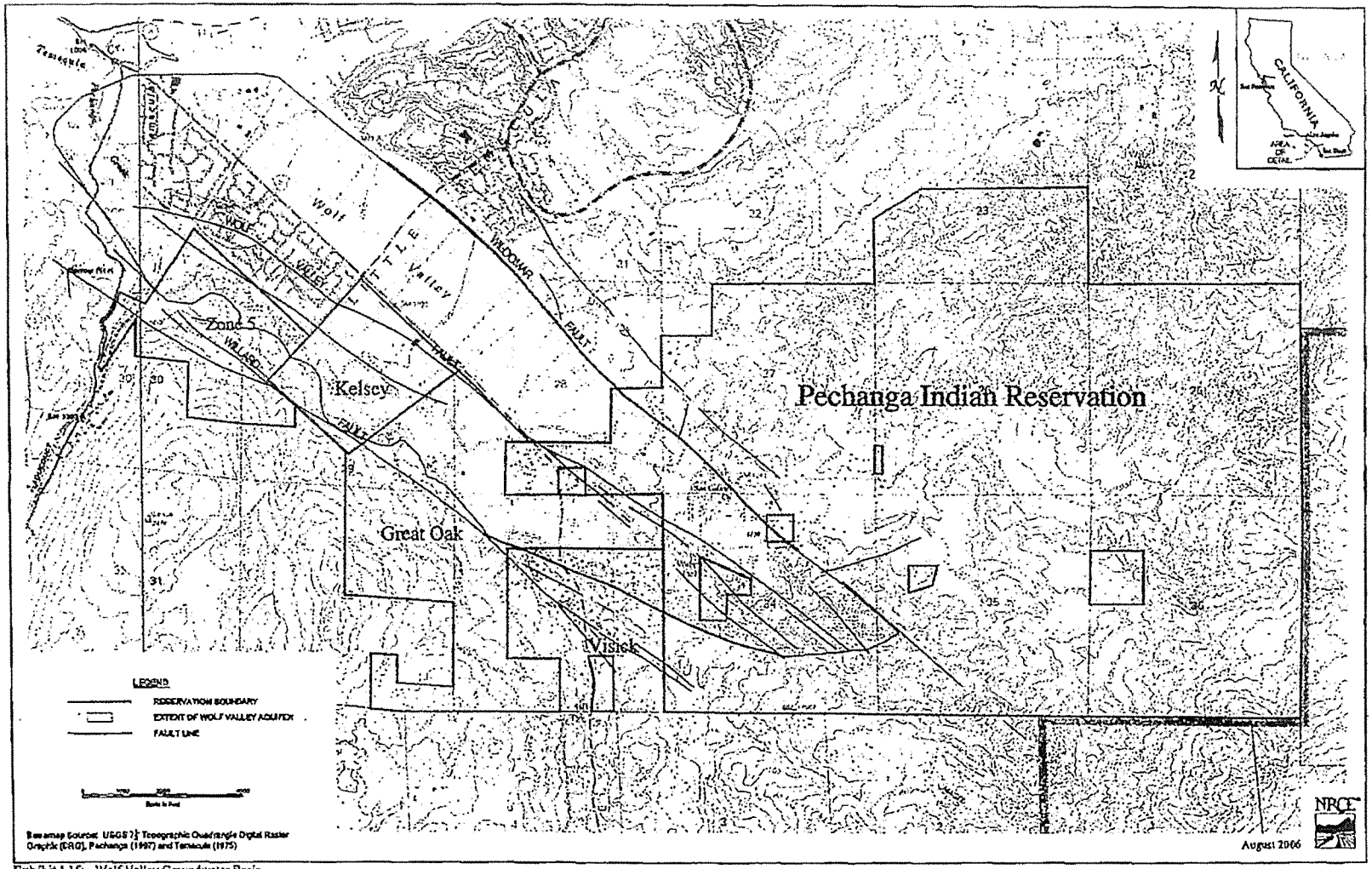


Exhibit 1.15: Wolf Valley Groundwater Basin

Exhibit A-5

RANCHO CALIFORNIA WATER DISTRICT

WATER SYSTEM FACILITY REQUIREMENTS

AUGUST 1, 1991

RANCHO CALIFORNIA WATER DISTRICT
42135 WINCHESTER ROAD
TEMECULA, CALIFORNIA 92590
TELEPHONE (951) 296-6900

RANCHO CALIFORNIA WATER DISTRICT
WATER SYSTEM FACILITY REQUIREMENTS

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SECTION III	DESIGN CRITERIA
SECTION IV	CONSTRUCTION DRAWING PREPARATION
SECTION V	PROCEDURES - WATER SYSTEM FACILITY CONSTRUCTION

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APPENDIX B	PLAN CHECK STATUS SHEET
APPENDIX C	ENGINEERING SERVICE APPLICATION
APPENDIX D	GENERAL CONSTRUCTION NOTES
APPENDIX E	LEGEND AND ESTIMATE OF QUANTITIES
APPENDIX F	CONSTRUCTION APPROVAL BOX/WATER SYSTEM CERTIFICATION
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APPENDIX R	WATER SYSTEM GRANT DEED
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SECTION I

INTRODUCTION

SECTION 1
INTRODUCTION

A. GENERAL

To assure a reliable supply of water for the Rancho California area, the Rancho California Water District was formed in 1965 for the properties generally east of I-15. A companion Santa Rosa Ranches Water District was formed in 1966 for the properties generally west of I-15. The two Districts were consolidated under its present name in 1977.

The Rancho California Water District is a public agency governed by an elected seven-member Board of Directors to serve four-year staggered terms. The District is directed by its General Manager and three Division Directors: Finance, Operations and Maintenance, and Engineering.

Rancho California Water District supplies its customers water for potable and non-potable uses.

Potable water users are supplied from Rancho California Water District's potable production wells and Metropolitan Water District potable water aqueducts.

Non-potable water users are supplied from Vail Lake, Metropolitan Water District's non-potable aqueducts, and Rancho California Water District's non-potable production wells.

B. POLICY

Rancho California Water District's basic policy is that the user benefiting from the service must pay for the cost of the necessary facilities. The District normally designs and constructs all primary facilities and the Developer normally designs and constructs all secondary facilities.

Primary facilities are those facilities required to produce and deliver water to each pressure zone from water sources, whether domestic or imported. Storage facilities, pumping stations, treatment facilities, water production wells, Metropolitan Water District aqueduct connections, and major supply pipelines are considered to be primary facilities.

Secondary facilities are designated as those facilities necessary to distribute the required waters throughout a pressure zone. Distribution mains, pressure reducing stations, and pipeline appurtenances are considered to be secondary facilities.

In some situations, minor pumping stations, reservoirs and transmission mains may be considered secondary facilities when their function can be entirely locally defined.

The District may elect, at its discretion, to oversize secondary facilities to meet anticipated future demands. In such cases, the District may fund the oversizing as a primary facility.

The District's General Manager, at his discretion, may allow deviations from these requirements. All requests for variances to these requirements must be in writing, stating the reasons for the request.

C. REQUIREMENTS

1. Developer shall design, construct, and dedicate to Rancho California Water District the secondary water facilities in accordance with the requirements of Rancho California Water District.

2. Developer shall provide all financial arrangements necessary to plan, design, and construct the project.

3. Developer shall obtain and dedicate water utility right-of-way to Rancho California Water District. Water facilities must be in either dedicated road right-of-way or in easements granted to Rancho California Water District.

4. Developer shall pay current applicable fees (refer to District's Customer Guide Rates and Charges)in addition to completing those requirements listed above. Fees may include: Plan Checking Fees, Connection Charges, Inspection Fees, Added Facilities Charges, Zone of Benefit Fees, Front Footage Charges, Main Participation Charges or Primary Facilities Fees, Service Connection Fees, and Meter Charges. District staff should be consulted for current and applicable fees.

5. Rancho California Water District will review all drawings, and may revise, modify, or require redesign of any concepts, drawings, or details submitted. All concepts and drawings must be approved by the District's Engineering Manager and Director of Engineering.

6. The Developer shall provide the District with a corrosion site survey for all CML/CMC steel pipelines. If required, the Developer shall have a cathodic protection design performed by a qualified engineer.

7. Procedures for development of water systems are similar for Tract Map developments, Parcel Map developments, and single lot main extension developments. Most procedures and design requirements herein have been prepared for Tract Map developments, but certain portions apply to all water system development work within Rancho California Water District's service area.

8. When applicable, the Developer shall also submit for review all improvement drawings within existing or future public rights-of-way for approval by the City of Temecula, City or Murrieta, or County of Riverside Engineering Department. All plan check, inspection and permit fees required by the City/County shall be paid, and all other requirements of the City/County shall be fulfilled prior to any construction within the public rights-of-way.

SECTION II

PROCEDURES
CONSTRUCTION DRAWING APPROVAL

SECTION II
PROCEDURES
CONSTRUCTION DRAWING APPROVAL

A. CONSTRUCTION DRAWINGS APPROVAL

District staff will review all water construction drawings and may revise, modify, or require redesign of any concepts, drawings, or details submitted. All concepts and drawings must be approved by District staff. Construction must begin within one year of approval of Water Construction Drawings. If more than one year has elapsed, the project must go through plan check procedure again before starting construction. The steps required to obtain Water Facilities Construction Drawing approval are as follows:

1. Submit Engineering Service Application and Plan Check Deposit.
2. Submit Tract Water System and Hydraulic Network Analysis.
3. Submit first plan check.
4. Submit subsequent plan checks.
5. Submit original Construction Drawings for approval.
6. Provide District with drawings.

A flowchart for Construction Drawing Approval is shown in Appendix "A". A plan check status sheet to be used by District staff is shown in Appendix "B". Each required step is discussed in detail below:

1. Submit Engineering Service Application and Plan Check Deposit

   The Engineering Service Application (available from the District) shall be completed and filed with the Engineering Services staff. The plan check deposit shall be submitted with the completed application. A copy of the Engineering Service Application is shown in Appendix "C".

2. Submit Tract Water System and Hydraulic Network Analysis

   Approximately one week after receiving the completed engineering services application and the plan check deposit, District staff will provide hydraulic grade elevation at connections to the District system. District staff may, in addition, provide design recommendations for the water system.

   Based on hydraulic grade elevations and design recommendations provided by the District, Developer shall submit to the District the following:

   a. One copy of the County of Riverside, City of Temecula, or City of Murrieta Conditions of Approval.

   b. Two copies of a master plan of the Tract with the proposed water facilities superimposed on same. Said plan shall show the node network, pipeline diameters, length, elevation at nodes, valve locations, and fire hydrant locations.

c. Two copies of the hydraulic network analysis of the proposed water system.

d. Fire flow letter from the appropriate fire protection agency, Riverside County Fire Department, Murrieta Fire Protection District, or California Division of Forestry.

Details regarding hydraulic network analysis are included in Section III, Design Criteria.

District staff will review the Tract Water System and the hydraulic network analysis and return one set with comments to the Developer. Minor revisions may be incorporated in the first plan check submittal. If major revisions are required, the Tract Water System and hydraulic network analysis shall be resubmitted until approved by District staff.

3. Submit First Plan Check

After review and approval of Tract Water System and hydraulic network analysis, Developer shall submit the following:

a. Three copies of the water construction drawings.

b. One copy of the sewer construction drawings.

c. One copy of the street improvement drawings.

d. One copy of the grading plan.

e. One copy of the approved Tract Water System and hydraulic network analysis.

f. Two copies of easement documents.

g. One copy of Tract/Parcel Map.

h. Corrosion Site Survey (for Steel Pipe Only)

i. Copy of receipt showing submittal to appropriate City/County for plan check of facilities within public rights-of-way.

Submittals must be complete or they will be rejected. Each submittal shall include a transmittal listing all items submitted and referencing the District project number and account number.

Details regarding waterline design criteria are included in Section III, Design Criteria. Details regarding preparation of construction drawings and easement documents are included in Section IV, Construction Drawing Preparation.

Water and sewer drawings should be combined and shown on the same drawing whenever possible.

The District will provide comments on one set of the water construction drawings and return same to Engineer for revisions. The goal of the District staff is to complete the first plan check within three weeks of receipt of submittal. Plan review time varies depending on the number of plans in the review process, size of project, complexity of plans, and completeness of drawings.

4. Submit Subsequent Plan Checks

For each subsequent plan check, Developer shall submit the following:

a. Previous District plan check set and copy of previous District transmittal.

b. Three copies of revised water construction drawings.

c. Two copies of easement documents.

d. Any additional material requested.

e. One copy of revised submittal showing City/County comments for facilities to be installed in public rights-of-way.

Submittals must be complete or they will be rejected. If drawings and easement documents are not yet satisfactory, District will make comments on one set of the drawings and easement documents and return same to Engineer for revisions. This procedure will be repeated as necessary until drawings and easement documents are complete. If Engineer does not return previous District plan sets, then plan check procedure will start from the beginning including payment of plan check deposit.

Each cycle of the subsequent plan check would normally be completed in approximately three weeks.

5. Submit Original Construction Drawings for Approval

After all plan checks are completed and the water construction drawings are acceptable to the District, the original drawings shall be submitted to the District for signature. Prior to District approval of the water construction drawings, Developer shall pay all remaining plan checking fees and submit:

a. Previous District plan check set and one copy of revised water construction drawings.

b. Copy of tentative tract/parcel map showing dedications of streets for road purposes and public utilities purposes,

or

c. Executed Grant of Easement, minimum width of 30 feet.

6. Provide District with Drawings

When drawings have been fully approved by all agencies, the Developer shall provide the District with a clean set of photo mylars and three sets of bluelines for District's use.

SECTION III

DESIGN CRITERIA

SECTION III
DESIGN CRITERIA

Water systems for inclusion into the District's service area shall be designed in accordance with the District's Standard Specifications and Standard Drawings for Water and Sanitary Sewer Facilities, dated March 1, 1990 or latest revision, and the following criteria:

A. HYDRAULIC NETWORK ANALYSIS CRITERIA

The District reserves the right to determine the criteria for each water system or sub-system based upon conditions that may exist for that particular location, anticipated level of development, planned use, or other criteria. In general, however, the water system shall be sized to handle the highest demand within the general area of the tract and shall conform to the following minimum standards:

1. Pipeline Diameters

The minimum pipeline diameter is 6"*. The District accepts only the following diameters: 6"*, 8, 12, 16, 20, 24, 30, 36, 42, and 48 inches.

* Must meet criteria specified in Item 6, below, System Analysis.

2. Pipeline Friction Factors

Pipeline friction factors shall be as follows:

Pipe Material	Hazen-Williams Coefficient
Cement Mortar Lined Steel Pipe and Asbestos Cement Pipe	C=120
Polyvinyl Chloride Pipe	C=130

3. Water System Unit Demands

Average Day unit demands shall be as follows:

	Land Use	Average Day unit Demand Factors
1.	Specific Plan	
a.	Residential	600 GPD/DU
b.	Commercial	2,000 GPD/AC
c.	Business Park/Industrial	2,500 GPD/AC
d.	Park/Golf Course/Resort Commercial	4 AF/AC/YR
e.	School	To be determined on an individual basis
f.	Open Space	1.5 AF/AC/YR

2. Southwest Area Plan

a.	Very Low Density/Low Density (1 DU/AC)	1,500	GPD/DU
b.	Medium Low Density (2-4 DU/AC)	1,000	GPD/DU
c.	Medium Density/Medium High Density/ High Density (5-16 DU/AC)	600	GPD/DU.
d.	Future Specific Plan	1,000	GPD/DU
e.	Commercial	2,000	GPD/AC
f.	Business Park/Industrial	2,500	GPD/AC
g.	Vineyard	1.2	AF/AC/YR
h.	Park/Golf Course	4	AF/AC/YR
i.	Wildlife/Reserve	0	
j.	Resort-Commercial	4	AF/AC/YR
k.	Open Space	1.5	AF/AC/YR
l.	Agricultural (Avocado, Citrus, Horse Ranch)	2	AF/AC/YR

* Only used when no detail available. Otherwise use items 1, a-f.

4. Peaking Factors

The peaking factors to be used, are as follows:

a. Maximum Day Demand

For the Santa Rosa Division, Maximum Day Demand shall equal 3.0 times the Average Day Demand for Zones 1440, 1670, and 1990. For all other zones, the Maximum Day Demand shall equal 2.5 times the Average Day Demand.

For the Rancho Division, Maximum Day Demand shall equal 3.0 times Average Day Demand for Zones 1610 and 1790. For all other zones, the Maximum Day Demand shall equal 2.5 times the Average Day Demand.

b. Peak Demand

For all zones, the Peak Demand shall equal two times the Maximum Day Demand.

5. Fire Flow

The fire flow requirements shall be in accordance with the applicable standards of the Insurance Services Office (ISO) and shall be those required by the Riverside County Fire Department, Murrieta Fire Protection District, or California Division of Forestry for the type of development under consideration.

6. System Analysis

The proposed water system shall be analyzed for the following two conditions:

a. Peak Demand Flow

b. Maximum Day Demand plus Fire Flow

For the Peak Demand flow condition, the pressure at each node shall be designed for 60 psi minimum. A minimum pressure of 40 psi may be allowed if static pressure is less than 60 psi. The maximum pressure at each node shall be 120 psi. The maximum velocity in the pipeline shall be 5 feet per second.

For the Maximum Day Demand plus fire flow, the pressure at each node shall be a minimum of 20 psi and a maximum of 120 psi. The maximum velocity in the pipeline shall be 10 feet per second. Fire flow should be taken from the hydrant furthest from the connection(s) to the District's distribution system, at the highest system elevation, and as directed by District.

B. WATER CONSTRUCTION DRAWING DESIGN CRITERIA

1. Pipeline Location

Unless otherwise approved by the District, all waterlines shall be located on the south or west side of the street, 7 feet off of curb face or berm per the Riverside County Road Department standards. Location is not to interfere with other existing utilities.

Pipe joint deflection shall not be more than manufacturer's recommended offset in a curved alignment. Joint deflection angle shall be indicated on all horizontal and vertical curves.

Waterline installation near sewer lines shall be in accordance with State Department of Health Services, Criteria for the Separation of Watermains and Sanitary Sewers. In general, waterlines should cross perpendicular to sewer lines a minimum of 1 foot above the sewer. If waterline crosses beneath the sewer then it should have a minimum separation of one foot, have no joints within 10 feet of each side of the sewer and shall be constructed of materials per aforementioned criteria. Waterlines parallel to sewer lines shall be located a minimum of ten feet from the sewer line.

When crossing other utilities, provide a minimum of one foot vertical clearance.

2. Minimum Pipe Cover

The minimum cover over the top of pipe shall be 42 inches from finished road grade, and shall provide adequate depth so that gate valve stems and operating nuts have 12 inch clearance to finished road grade. When 42 inches of cover cannot be provided, concrete encasement or protective slab construction over the pipeline may be considered. Consult with District staff.

3. Pipe Materials

Unless otherwise authorized by District, all waterlines larger than 16 inches diameter shall be cement mortar lined and cement mortar coated welded steel pipe or cement mortar lined and wrapped steel pipe in accordance with District standards. All

waterlines 16 inches and smaller shall be Polyvinyl Chloride Pipe (PVC) in accordance with District standards unless conditions dictate the use of CML/CMC steel pipe. In some cases, District may allow the use of Asbestos Cement Pipe (ACP). Minimum allowable pipe shall be as follows:

PVC Pipe - Class 150
CML & C Steel Pipe, diameter 24" and smaller - 12 ga
CML & C Steel Pipe, diameter larger than 24" - 10 ga
AC Pipe (where acceptable to District) - Class 200

4. Pipe Slope

Minimum slope of waterlines shall be 0.5% unless otherwise authorized by District.

5. Valves

Valves 12" and smaller shall be resilient seated gate valves per District standards. Valves 16" and larger shall be butterfly valves per District standards. Valves 24" and larger shall have a bypass valve installed around the mainline valve. Valves shall be the same size as nominal pipeline diameter.

Three valves shall be installed on each tee and four valves shall be installed on each cross. Valves shall be spaced at 1,320 foot maximum intervals or as directed by District staff.

6. Fire Hydrants

Fire hydrants shall be in accordance with District standards, constructed at right angles to the waterline.

Fire hydrants shall be located per the requirements of the Riverside County Fire Department as stated in the Tract Conditions of Approval but no greater than 1000 foot intervals.

7. Air Valves

Air valves shall be combination air vacuum and air release valves in accordance with the District standards, constructed at right angles to the waterline.

Air valves shall be located at all high points of pipeline and downstream of valves. Minimum size of air valves shall be 1" and shall be sized as follows:

Air Valve Size	Pipeline Diameter
1"	8" & 12"
2"	16", 20", & 24"
4"	30"
Consult with District staff	> 30"

8. Blowoffs

Blowoffs shall be in accordance with District Standards, located at right angles to the waterline. Where possible, fire hydrants shall be used in place of blowoffs.

Blowoffs shall be located at all low points of the pipeline at all dead-ends or termin points, and upstream of valves. Minimum size of blowoffs shall be 4". Consult with District staff regarding required size.

9. Water Services

Water services shall be in accordance with District standards; constructed at right angles to the watermain and shall be sized per the following table:

Lateral Size	Meter Size	Maximum Capacity
1"	3/4" Disc	30 GPM
1"	1" Disc	50 GPM
1-1/2"	1-1/2" Multi Jet	100 GPM
2"	2" Multi Jet	125 GPM
2"	2" Turbine	160 GPM
4"	3" Turbine	300 GPM
4"	4" Turbine	750 GPM
6"	6" Turbine	1,550 GPM
8"	8" Turbine	2,500 GPM

No service laterals shall be installed between fire hydrants, blow offs, or air valves and pipeline dead ends.

All non-residential water services shall have a District approved backflow prevention device installed adjacent to meter unless otherwise approved by District.

10. Minimum Design Pressure

Minimum design pressure shall be the static pressure plus 25% with the total rounded up to the nearest 25 psi.

11. Control Valves, Pressure Relief Valves, and Other Special Valves

Control valves, pressure relief valves, and other special valves shall be designed and located as directed by District staff.

12. Easement Criteria

Pipelines not located within public right-of-way must be located in easements granted to the District on the District's Grant of Easement form. Easements shall be a minimum of 30 feet in width unless otherwise approved by the District. Easements for other utilities may overlap District easement only if proper separations are maintained. Details for grant of easement documents are included in Section IV, Construction Drawing Preparation.

SECTION IV

CONSTRUCTION DRAWING PREPARATION

SECTION IV
CONSTRUCTION DRAWING PREPARATION

A. GENERAL

Engineer shall prepare water system improvement drawings that are clear, concise, and meet District standards.

Drawings shall be drawn in ink on D size mylar sheets (24" x 36") with Rancho California Water District approval block.

The drawings shall be professional quality drawings especially prepared as WATER DRAWINGS or WATER AND SEWER DRAWINGS. Work shall be of standard engineering practice and shall be legible and present the proposed construction without confusion.

Water and sewer design may be shown on the same drawings if the drawings are clear and concise. The District shall be the sole judge as to when separate drawings are necessary.

B. COVER SHEET

The cover sheet shall show as a minimum:

1. General notes (Appendix "D")
2. Legend (Appendix "E")
3. Estimate of quantities (Appendix "E")
4. Approval for Construction Box (Appendix "F")
5. Water System Certification (Appendix "F")
6. Index of Drawings
7. Vicinity Map
    a. Scale
    b. North Arrow
    c. Street Names
    d. Title and Location of Project
8. Index Map
    a. Scale
    b. North Arrow
    c. Tract Layout with Street Names and Lot Numbers

d. Proposed Waterlines Identified by Size and Type

e. Symbols for all Appurtenances

1. Fire Hydrants

2. Air Valves

3. Blowoffs

4. Tees, Crosses

5. Valves

6. Water Services

f. Sheet Numbers Corresponding to Plan and Profile Sheets

The use of a second sheet to include all information is permissible.

C. PLAN AND PROFILE SHEETS

The plan/profile sheets shall be drawn at a horizontal scale of 1"=40' and a vertical scale of 1"=4', and as a minimum the drawings shall show the following:

PLAN PORTION

1. Title Block

Title block shall show Tract No., pressure zone, and scale of drawings. District approval blocks shall be incorporated into the title block.

2. North Arrow

North Arrow shall point up or to the left if possible to conform with Item 11.

3. Right-of-Way

Existing and proposed right-of-way shall be identified with dimensions for same shown.

4. Curb Separation

Existing and/or proposed curb separation shall be identified with dimensions for same shown.

5. Easements

Existing or proposed easements shall be identified with dimensions for same shown.

6. Street Names

All street names shall be shown.

7. Lot Lines

All lot lines and parcel lines shall be shown. All lots shall be numbered or labeled. All adjacent tracts shall be identified.

8. Utilities

All existing and proposed Utilities shall be shown. Utilities to be shown shall include, but not be limited to, water (existing water lines shall be identified by District Plan No.), sewer, gas, power, telephone, storm drain, irrigation, traffic, and cable television. Each utility shall be identified with a symbol and the size of the utility shall be shown.

9. Existing and Proposed Improvements

All existing surface improvements shall be shown including, but not limited to, curb and gutter, edge of pavement, power poles, driveways, sidewalks, and fences.

10. Match Lines

Match lines for each end of the street shall be shown as follows:

Sta 15+00.00 Match Line
See Sheet 5

11. Stationing

Stationing along the centerline of the improvement shall be shown. Unless otherwise specified, station shall increase from left to right. Stationing shall be identified with tick marks at 100' intervals.

12. Proposed Pipeline

Proposed pipeline shall be indicated with a heavy line. Dimensions from street centerline to centerline of pipeline shall be shown. Pipeline shall be identified as:

℄ ____" CML&C (__ Gauge Minimum) Pipeline

OR

℄ ____" C900 (use C905 for 16" PVC) Class ___ PVC Pipeline

13. Appurtenances

All appurtenances including tees, crosses, elbows, and blind flanges or plugs shall be identified by station and size as follows:

Sta 12+25.00 ℄ 12" x 12" x 8" Tee

All pipeline appurtenances including air valves, blowoffs, fire hydrants, and valves shall be identified by station, size, and Rancho California Water District Standard Number as follows:

Sta 12+25.00 ℄ 2" Air Valve per RCWD Std. Dwg. No. ____

All meter services shall be indicated on the drawings. The stationing of services is not required on the drawings, however, after construction of proposed facilities, the engineer shall provide the District with an "as-built" stationing table of the meter services on the record drawings.

All connections to existing water system shall be identified by station and size. A station equation and District plan number shall be used to reference existing waterlines. Detail for connection shall be used where required.

PROFILE PORTION

Only profiles for water and sewer shall be shown. All other utility profiles shall not be shown unless conflicting or where crossing over or under (i.e. storm drain).

1. Stationing

Stations shall be shown along bottom of profile at 100 foot intervals. Profile stationing shall line up with plan stationing.

2. Elevations

Elevations shall be shown on both ends of the profile sheet.

3. Existing and Proposed Ground Surface

Existing ground surface or pavement over the proposed pipeline shall be identified as follows:

Existing "Top of Pavement (or ground surface) over Centerline of Pipeline"

Proposed ground surface or pavement over the proposed pipeline shall be identified as follows:

"Proposed Top of Pavement (or ground surface) over Centerline of Pipeline"

4. Match Lines

Match lines for each end of sheet shall be shown as follows:

Sta 15+00.00 Match Line
See Sheet 5

5. Flow line of proposed pipeline shall be identified as follows:

℄ ____" CML&C (___ ga minimum) Pipeline

OR

℄ ___" C900 (use C905 for 16" PVC) Class ___ PVC Pipeline.

6. Stationing and Flow Line Elevation

Pipeline stationing and flow line elevations shall be shown for each grade break as follows:

Sta 14+00.00 GB
1192.35 ℄

Pipeline stationing and flow line elevations shall be shown for each tee, cross, elbow, BC, EC, hot tap, and end of pipeline as follows:

Sta 12+25.00, 12"x12"x8" Tee
1190.00 ℄

Pipeline stationing and flow line elevations shall be shown for all air valves, blowoffs, and fire hydrants as follows:

Sta 12+25.00, 4" Blowoff
1190.00 ℄

Pipeline station and flow line elevation shall be show for each utility crossing.

7. Pipeline Lengths and Pipeline Slopes

Pipeline lengths and pipeline slopes shall be shown between all grade breaks as follows:

S = 0.005 135.00 LF ___" PVC
___" CML & C

8. Minimum Design Pressure

Minimum design pressure shall be shown at top of each sheet as follows:

Minimum Design Pressure = 175 psi

9. Welded Joint Limits

Length of welded joints for welded steel pipe shall be identified as "Fully Welded Joints" with station limits shown.

10. Minimum Cover

42" minimum cover shall be shown between top of pipe and existing or proposed ground surface.

11. Maximum Cover

The maximum cover shall be 8' between the top of pipe and existing or proposed ground surface.

A checklist for the preparation of water construction drawings is shown in Appendix "G".

D. GRANT OF EASEMENTS

The Grant of Easement shall be on District form and shall consist of three parts. Grant of Easement form, legal description, and plat.

The legal description shall be designated as Exhibit "A" and if appropriate shall have the assessor's parcel number indicated on the upper right corner of the exhibits. The legal description shall be prepared by a California Registered Civil Engineer or Land Surveyor and signed and stamped by said engineer or surveyor.

The plat shall be designated as Exhibit "B" and shall be prepared on District plat map and signed and stamped.

Copies of Grant of Easement form and plat are shown in Appendix "H". Items to be included on the plat map are shown in said appendix.

SECTION V

PROCEDURES
WATER SYSTEM FACILITY CONSTRUCTION

SECTION V
PROCEDURES
WATER SYSTEM FACILITY CONSTRUCTION

All water facility projects will be constructed by Developer and inspected by District inspectors. Work performed without the knowledge or the observation of a District inspector will not be accepted. The steps required to obtain approval of construction of water facilities are as follows:

1. Submit Engineering Service Application and Inspection Deposit.
2. Provide Submittals, Water System Construction Agreement, Bonds, and Certificate of Insurance.
3. Attend Preconstruction Meeting.
4. Notify District Regarding Construction Start.
5. Construct Water System Facilities.
6. Pressure Test and Disinfect Water System Facilities.
7. Provide Continuity Test (Steel Pipe Only)
8. Pay any Remaining Inspection Fees.
9. Connect to Existing Water System.
10. Submit Application for Unmetered Construction Water.
11. Remove Unmetered Connections.
12. Submit Drop-in Meter Application and Pay Fees.
13. Provide Unconditional Lien Waiver and Release, Water System Grant Deed, and Record Drawings.
14. Notice of Completion Filed by District and Drop-in Meters Installed by District.

A flowchart for water system facility construction is shown as Exhibit "I". A construction status sheet to be used by District is shown in Appendix "J". Each required step is discussed in detail below:

1. Submit Engineering Service Application and Inspection Deposit

   The engineering service application (available from the District) shall be completed and filed with the District staff. A copy of the engineering services application is shown in Appendix "C". The inspection deposit and three copies of approved water construction drawings shall be submitted with the completed application.

2. Provide Submittals, Water System Construction Agreement, Bonds, and Certificate of Insurance

Developer shall submit to District staff the following:

a. Contractor information sheet (Appendix "K").

b. Materials list (see District's Standard Specifications and Standard Drawings for Water and Sanitary Sewer Facilities, Special Provisions, Section 5)

c. Two copies of Encroachment Permits.

d. One copy of recorded tract/parcel map showing dedication of streets for road and public utility purposes (not required if executed Grant of Easement provided earlier).

e. Water System Construction Agreement (Appendix "L").

After District executes Water System Construction Agreement, approves Contractor, and approves materials list, Developer shall submit the following:

a. Copy of the Contract between Developer and Contractor verifying cost of water system facility construction.

b. Certification of streets to final grade (Appendix "M").

c. Certificates of Insurance for Contractor (Appendix "N").

d. Faithful Performance Bond (Appendix "O"): Performance bonds provided to the City/County are satisfactory if the facilities to be turned over to RCWD are included.

After District reviews and approves all submittals, District staff will issue a Notice to Proceed.

Thereafter, Developer shall schedule a preconstruction meeting with District staff. A one week notice is required prior to said preconstruction meeting.

3. Attend Construction Meeting

Preconstruction meeting shall be held at the District office and shall be attended by Developer's representative, Developer's contractor, and construction superintendent as well as by District staff.

4. Notify District Regarding Construction Start

Contractor shall notify District, in writing, a minimum of one week prior to construction start. Prior to construction, Contractor shall submit three copies of the construction cut sheets for Districts use during construction. Waterline shall be staked at 50 foot intervals and at all water services, fire hydrants, tees, crosses, elbows, valves, air valves, blowoffs, and grade breaks.

5. Construct Water System Facilities

The water system facilities shall be constructed by Developer's contractor and inspected by District inspectors. After completion of construction, Developer's contractor shall complete all items on District's inspection list prior to testing and disinfecting water facilities.

6. Pressure Test and Disinfect Water System Facility

After water facilities are completed to satisfaction of District inspector including all items on inspector's construction deficiencies list, and after Contractor furnishes evidence that compaction of trenches has been completed to the satisfaction of the County of Riverside Road Department, City of Temecula, or City of Murrieta, Contractor shall test and disinfect the water facility in accordance with District Standards.

After system has been tested and disinfected, District will take samples for bacteriological tests. Acceptable bacteriological test results must be obtained before District will allow connections to existing water system.

7. Provide Continuity Test (Welded Steel Pipe Only)

After water facilities are tested and disinfected, Contractor shall perform continuity test on all corrosion control equipment. Contractor shall provide written results of said test to District. District shall approve said tests before District will allow connections to existing water system.

8. Pay Any Remaining Inspection Fees

Before District will allow connections to existing water system, any remaining inspection fees must be paid in full.

9. Connect to Existing Water System

After all fees have been paid and system is disinfected, Contractor may connect water facilities to existing water facility system. Contractor shall provide the District with three weeks written notification requesting a system shutdown to make tie-in's to the existing District facilities. Thereafter, District will release new water system facilities for fire protection and construction water.

10. Submit Application for Unmetered Construction Water

Developer shall submit application for unmetered construction water with the appropriate fee to District staff (Appendix "P").

After approval of same, Developer shall install unmetered connections in accordance with District Standards.

11. Remove Unmetered Connections

After Contractor is completed with construction, he shall remove unmetered connections and prepare for drop-in meters as follows:

a. Construction water shall be discontinued completely and jumpers removed.
b. Angle meter stops shall be set to proper elevation and location, meter boxes shall be set to proper elevations and locations.

c. Sidewalks and driveways shall be placed and forms stripped on areas in vicinity of meter boxes.

d. Lots shall be fine graded.

12. Submit Drop-in Meter Application and Pay Fees

a. The Drop-in Meter Application shall be completed and filed with District staff. All related meter installation and connection fees shall be submitted with the completed application. Approximately 30 days are required after receipt of the application and fees before meter will be set.

b. District inspector will inspect those lots requiring meters. Any deficient items will be listed on a punch list and copies will be given to Developer to correct. When all items have been resolved and accepted by inspector, said lots will be released to customer service for meter installations. There is a 2 week lead time from when lots are released for drop-in meters and when actual drop-in meters are installed.

13. Provide Unconditional Lien Waiver and Release, Water System Grant Deed, and Record Drawings

Before District will install drop-in meters, Contractor shall:

a. Provide Unconditional Lien Waiver and Release for waterline construction (Appendix "Q").

b. Provide Grant Deed dedicating water system to District. Said Grant Deed is effective only after final Notice of Completion for water system facilities is filed by District staff. Grant Deed must be filed on form provided by District (Appendix "R").

In the event an Agency Agreement is required by the District, Developer shall grant said Agency Agreement to the District on form provided by District (Appendix "S").

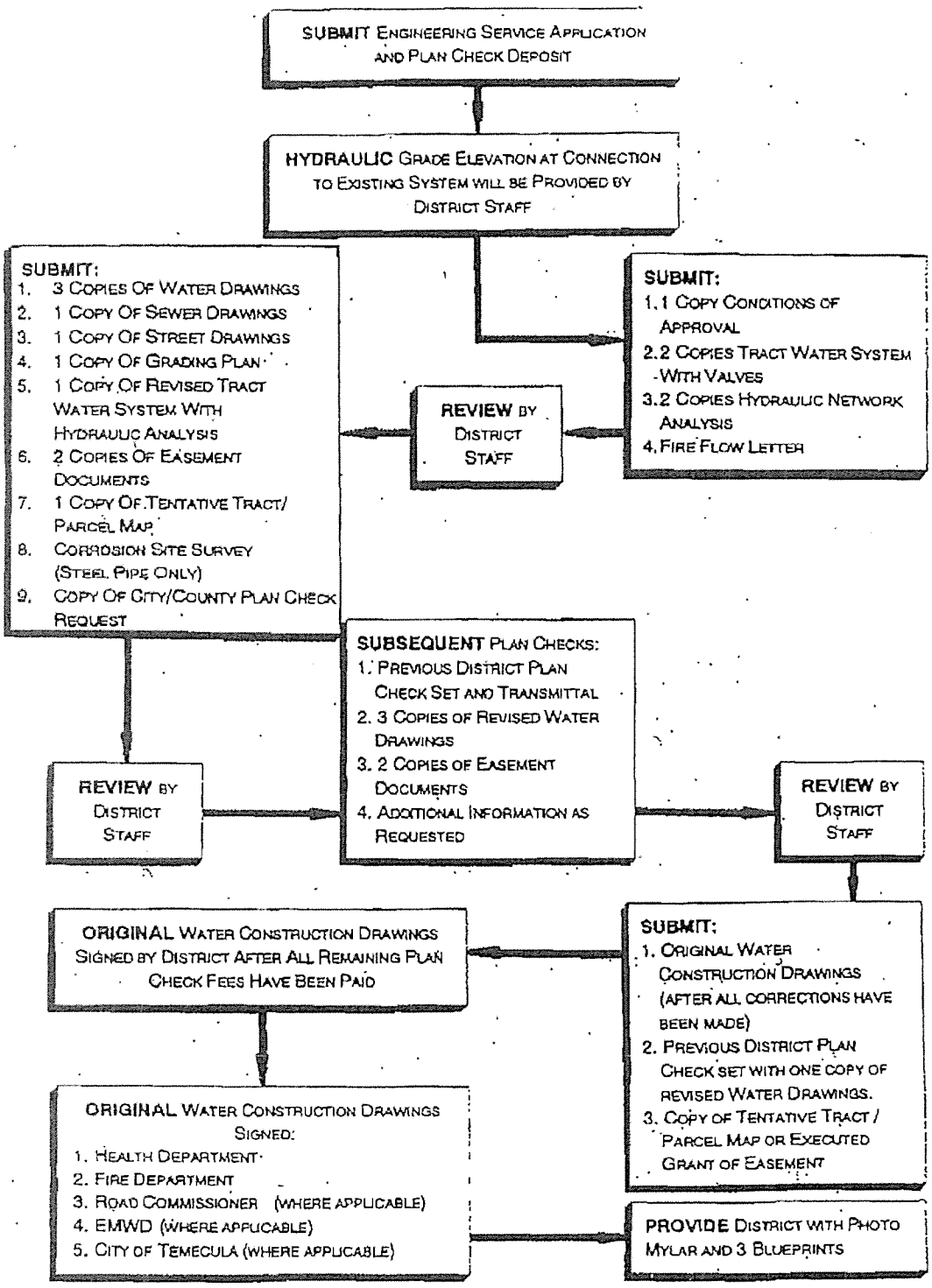
c. Water system record ("As-Builts") drawings.

14. Notice of Completion Filed by District and Drop-in Meters Installed by District

After receipt, and approval of items in Section 13, District will file Notice of Completion and install drop-in meters.

APPENDICES

FLOWCHART FOR CONSTRUCTION DRAWING APPROVAL



APPENDIX "A"

8/1/91

RANCHO CALIFORNIA WATER DISTRICT
WATER SYSTEM FACILITY REQUIREMENTS

PLAN CHECK STATUS SHEET

RCWD JOB NO. _____ TRACT NO. _____

PARCEL MAP NO. _____

NAME OF PROJECT: _____

DEVELOPER: _____

LOCATION OF PROJECT: _____

ENGINEER: _____ PHONE: _____

ITEM	DATE	INITIAL
1. Received Engineering Service Application and Plan Check Deposit (Engineer).	_____	_____
2. Provide Hydraulic Grade Elevation at Connections to Existing System (District)	_____	_____
3. Received:		
-One Copy of Conditions of Approval (Engineer)	_____	_____
-Two Copies of Tract Map with Proposed Water System Including Valves (Engineer)	_____	_____
-Two Copies of Hydraulic Network Analysis of Proposed System (Engineer)	_____	_____
4. Review Item 3 and Provide Comments (District)	_____	_____
5. Received First Plan Check (Engineer):	_____	_____
-Three Copies of Water Construction Drawings	_____	_____

EXHIBIT "B"

8/1/91

	ITEM	DATE	INITIAL
	-One Copy of Sewer Construction Drawings (Unless Part of Water Drawings)	_____	_____
	-One Copy of Street Construction Drawings	_____	_____
	-One Copy of Grading Plan	_____	_____
	-One Copy of Revised Tract Map with Hydraulic Network Analysis	_____	_____
	-Two Copies of Easement Documents	_____	_____
	-One Copy of Tract/Parcel Map	_____	_____
	-Corrosion Site Survey (Steel Pipe Only)	_____	_____
	-Copy of City/County Plan Check Receipt	_____	_____
6.	Review First Plan Check, Provide Comments (District)	_____	_____
7.	Received Second Plan Check (Engineer)	_____	_____
	-Previous District Plan Check Set and Transmittal	_____	_____
	-Three Copies of Revised Water Construction Drawings	_____	_____
	-Two Copies of Easement Documents	_____	_____
	-Copies of Additional Information as Requested	_____	_____
	_____		
	_____		
	_____		
8.	Review Second Plan Check, Provide Comments (District)	_____	_____

	ITEM	DATE	INITIAL
9.	Received Third Plan Check (Engineer)	_____	_____
	-Previous District Plan Check Set and Transmittal	_____	_____
	-Three Copies of Revised Water Construction Drawings	_____	_____
	-Two Copies of Easement Documents	_____	_____
	-Copies of Additional Information as Requested	_____	_____
	_____		
	_____		
	_____		
10.	Review Third Plan Check, Provide Comments (District)	_____	_____
11.	Received Original Construction Drawings for Signature (Engineer)	_____	_____
	-Previous District Plan Check Set and One Copy of Revised Water Construction Drawings	_____	_____
	-All Remaining Plan Check Fees Paid	_____	_____
	-Copy of Tentative Tract/Parcel Map	_____	_____
	or		
	-Executed Grant of Easement	_____	_____
12.	Construction Drawings Signed (District)	_____	_____
13.	Received One Set of Photo Mylars and Three Sets of Construction Drawings (Engineer)	_____	_____

Receipt # _____

8/1/91

Rancho Water

ENGINEERING SERVICE APPLICATION

Type Of Meter	Size	No Dials	Meter No

RP Mfr	RP No	Install Date

DIVISION:

Rancho ☐ Santa Rosa ☐ Sewer ☐ Job # _____ Desc _____

Date: Job # _____ Desc _____

Rep: Job # _____ Desc _____

Applicant's Name

_____

_____

Mailing Address

_____
Post Office Box/Street

_____
City State Zip Telephone

Owner/Responsible Party _____

Mailing Address

_____
Post Office Box/Street

_____
City State Zip Telephone

SERVICES REQUIRED: Description of Service Area _____

_____

_____

_____

DEPOSIT BASIS:

Main Extension Est. $1260.00 ☐

Assessment District Req. $4,778 ☐

Detector Check Inspection Fee $2300.00 ☐

PLAN CHECK:

1st 1,000 Feet $398.00 ☐ Total LF

Additional Footage $40/100 Feet ☐

Additional

LF X RATE per LF

INSPECTION:

LF of Line X RATE per LF $3.63 = Deposit

OTHER: Description = Deposit

TOTAL DEPOSIT REQUIRED

FEE BASIS:

¾ Inch Detector Check Meter $79.00 ☐

Will Serve Letters $91.00 ☐

Topo Map Copy $106.00 ☐ Duplicate Topo/Mylar $324.00 ☐

Temporary Remote Meter $242.00 ☐ Annex. Proc. $3575.00 ☐

OTHER: Description _____ Amount

TOTAL FEES REQUESTED

CHECK ENCLOSED FOR TOTAL AMOUNT

The undersigned customer agrees that deposits for engineering services listed above are based on estimates. In the event that actual costs should exceed the original estimate, additional payments will be required.

Signature Signature

RANCHO CALIFORNIA WATER DISTRICT
GENERAL CONSTRUCTION NOTES

1. GENERAL

A. CONTRACTOR SHALL FURNISH AND INSTALL ALL FACILITIES IN ACCORDANCE WITH THE DISTRICT'S STANDARD SPECIFICATIONS AND STANDARD DRAWINGS FOR WATER AND SANITARY SEWER FACILITIES (DATED MARCH 1, 1990 OR LATEST REVISION). THE SPECIFICATIONS AND STANDARD DRAWINGS ARE AVAILABLE FROM THE DISTRICT. CONTRACTOR SHALL BE IN POSSESSION OF DISTRICT'S SPECIFICATIONS AND STANDARD DRAWINGS ON THE JOB SITE AT ALL TIMES.

B. ALL PERMITS REQUIRED BY LAW SHALL BE ACQUIRED BY THE APPLICANT OR THEIR CONTRACTOR.

C. ALL CONSTRUCTION SHALL CONFORM TO CURRENT CAL OSHA SAFETY REQUIREMENTS.

D. APPROVAL BY RCWD IMPLIES NO PERMISSION OTHER THAN THAT WITHIN THE DISTRICT'S JURISDICTION. REQUIREMENTS OF RCWD SHALL TAKE PRECEDENCE OVER REQUIREMENTS OF OTHER AGENCIES ONLY WHEN RCWD REQUIREMENTS ARE GREATER.

E. CONTRACTOR SHALL NOTIFY RCWD'S CONTRACTS MANAGER A MINIMUM OF ONE WEEK PRIOR TO STARTING CONSTRUCTION.

F. CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION REQUESTING A SYSTEM SHUTDOWN FOR CONNECTIONS TO EXISTING SYSTEM. SAID NOTIFICATION SHALL BE MADE A MINIMUM OF THREE WEEKS PRIOR TO SAID SHUTDOWN TO THE RCWD CONTRACTS MANAGER.

G. CONTRACTOR SHALL DESIGNATE A QUALIFIED SUPERINTENDENT WITH FULL AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR. SAID SUPERINTENDENT SHALL BE ON THE JOB SITE AT ALL TIMES.

H. CONTRACTOR SHALL PERFORM ALL WORK UNDER RIVERSIDE COUNTY ROAD DEPARTMENT, CITY OF TEMECULA, OR CITY OF MURRIETA JURISDICTION IN ACCORDANCE WITH ALL REQUIREMENTS OF SAID DEPARTMENT OR CITY INCLUDING TRAFFIC CONTROL, PAVEMENT REMOVAL, TEMPORARY PAVEMENT PLACEMENT, PERMANENT PAVEMENT PLACEMENT (INCLUDING BASE MATERIAL) AND TEMPORARY AND PERMANENT TRAFFIC STRIPPING.

2. PIPELINE AND APPURTENANCES

A. ALL VALVES, PIPING, AND APPURTENANCES SHALL BE DESIGNED TO MEET OR EXCEED THE SPECIFIED MINIMUM DESIGN PRESSURE SHOWN ON THE PLAN/PROFILE SHEETS. IN ADDITION, ALL VALVES, PIPING, AND APPURTENANCES SHALL BE TESTED AT A PRESSURE OF 10% OVER SAID MINIMUM DESIGN PRESSURE. VALVES SHALL BE CAPABLE OF WITHSTANDING SAID TEST PRESSURE IN A CLOSED POSITION.

B. ALL MATERIALS, TESTING, AND INSPECTION OF PIPE SHALL BE IN CONFORMITY WITH THE REQUIREMENTS OF RANCHO CALIFORNIA WATER DISTRICT, RIVERSIDE COUNTY, CITY OF TEMECULA AND THE AMERICAN WATER WORKS ASSOCIATION STANDARDS. FAILURE TO MEET ANY REQUIREMENTS OF THE ABOVE REFERENCED AGENCIES WILL BE CAUSE FOR REJECTION.

C. PIPE SHALL BE __" _____ IN ACCORDANCE WITH RCWD SPECIFICATIONS AND STANDARDS (PROVIDE PIPE DIAMETER FOR PVC PIPE, PROVIDE AWWA C900 OR AWWA C905 AND PIPE CLASS FOR CML & C STEEL PIPE, PROVIDE MINIMUM GA FOR STEEL CYLINDER).

D. VALVES 12" AND SMALLER SHALL BE RESILIENT SEATED GATE VALVES IN ACCORDANCE WITH RCWD STANDARD DRAWING NOS. RW-30 AND RW-31 UNLESS OTHERWISE SPECIFIED. VALVES 16" AND LARGER SHALL BE BUTTERFLY VALVES UNLESS OTHERWISE SPECIFIED.

E. AIR VACUUM AND AIR RELEASE ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH RCWD STANDARD DRAWING NO. _____ (RW-9, RW-10, OR RW-11).

F. ALL SERVICE CONNECTIONS SHALL BE ___" COPPER SERVICES BY ___" METERS AS NOTED ON THE DRAWINGS. ALL SERVICES SHALL BE LOCATED AS SHOWN ON THE DRAWINGS, ADJUSTED UNDER RCWD INSPECTION TO MISS DRIVEWAYS AND OTHER IMPROVEMENTS. SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH RCWD STANDARD DRAWING NO. ___ (RW-13, RW-14, RW-15, RW-16, RW-17, OR RW-17A).

ALL NON-RESIDENTIAL METERS SHALL BE INSTALLED WITH A DISTRICT APPROVED BACKFLOW DEVICE.

G. FIRE HYDRANTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWING NO. ____ (RW-3, RW-5, RW-6, RW-7, OR RW-8).

H. WATERLINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH STANDARD DRAWING NOS. _____ (RW-22 AND RW-25 FOR PVC PIPE, AND RW-28, RW-29, AND RW-32 THROUGH RW-36 FOR WELDED STEEL PIPE).

I. THRUST BLOCKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH RCWD STANDARD DRAWING NO. RW-26.

3. UTILITIES

A. AT LEAST 48 HOURS BEFORE COMMENCING ANY EXCAVATION, CONTRACTOR SHALL REQUEST UNDERGROUND SERVICE ALERT (1-800-422-4133) AND NON-MEMBER COMPANIES, OR UTILITIES TO MARK OR OTHERWISE INDICATE THE LOCATION(S) OF THEIR SUBSURFACE FACILITIES INCLUDING; BUT NOT LIMITED TO, STRUCTURES INCLUDING VAULTS, MAIN CONDUCTORS OR CONDUITS, AND SERVICE CONNECTIONS.

B. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE EXISTING WATERLINES AT PROPOSED CONNECTIONS AND CROSSINGS AND VERIFY ELEVATIONS, LOCATIONS, AND SIZE OF EXISTING FACILITIES.

C. CONTRACTOR SHALL NOT INTERRUPT OR DISTURB ANY UTILITY FACILITY WITHOUT AUTHORITY FROM THE UTILITY. WHERE PROTECTION IS REQUIRED TO ENSURE INTEGRITY OF UTILITY FACILITIES (INCLUDING DISTRICT-OWNED UTILITIES), CONTRACTOR SHALL FURNISH AND PLACE ALL NECESSARY PROTECTION.

D. WHENEVER A WATERLINE ENCOUNTERS A STORM DRAIN PIPE OR OTHER OBSTRUCTION AND CROSSING OVER THE OBSTRUCTION WILL RESULT IN LESS THAN 42" OF COVER OVER THE TOP OF THE WATER, THE WATERLINE SHALL CROSS UNDER THE OBSTRUCTION WITH A MINIMUM CLEARANCE OF 12".

4. CONSTRUCTION DRAWINGS

A. MINIMUM PIPE COVER SHALL BE 42" FROM FINISHED GROUND SURFACE.

B. WATER SYSTEM PROFILE ELEVATIONS ARE TO FLOW LINE OF PIPE.

C. STATIONING FOR PIPELINE AS SHOWN ON PLAN PORTION OF DRAWINGS IS PERPENDICULAR TO CENTERLINE OF RIGHT-OF-WAY.

D. SEPARATION BETWEEN SEWER AND WATER SHALL CONFORM TO RIVERSIDE COUNTY STANDARD NO. 817 AND RCWD STANDARD DRAWING S-23.

5. CONSTRUCTION TOLERANCES

PIPELINES SHALL BE CONSTRUCTED SO THAT ACTUAL FLOW LINE ELEVATIONS ARE WITHIN 0.1 FOOT OF DESIGN FLOW LINE ELEVATIONS. PIPELINES, WHEN INSTALLED, SHALL HAVE CONTINUOUS UPGRADE OR DOWNGRADE, CORRESPONDING WITH DESIGN SLOPE, WITHOUT ANY HIGH SPOTS. PIPELINES SHALL BE CONSTRUCTED SO THAT ACTUAL PIPELINE CENTERLINES ARE WITHIN 0.1 FOOT OF DESIGN PIPELINE CENTERLINES.

PIPELINE CONSTRUCTION SHALL CONFORM WITH CONSTRUCTION DRAWINGS IN ACCORDANCE WITH THE ABOVE SPECIFIED TOLERANCES. CONTRACTOR SHALL ASSIST DISTRICT AS REQUIRED TO CONFIRM COMPLIANCE WITH CONSTRUCTION TOLERANCES. CONTRACTOR SHALL MAKE OR ASSIST IN MAKING ALL NECESSARY MEASUREMENTS AS DETERMINED BY DISTRICT.

6. INSPECTION FEE

THREE WEEKS PRIOR TO CONSTRUCTION, A DEPOSIT FOR INSPECTION FEE WILL BE MADE. THIS FEE IS ESTIMATED AT $_____. SHOULD ACTUAL COSTS BE GREATER, THE BALANCE SHALL BE PAID TO THE DISTRICT BY THE APPLICANT. SHOULD ACTUAL COSTS BE LESS, THE BALANCE SHALL BE REFUNDED TO THE APPLICANT. FEES SUBJECT TO CHANGE WITHOUT NOTICE.

7. ENGINEERING FIRM

PRIOR TO SIGNING OF WATER CONSTRUCTION DRAWINGS BY RCWD. ALL QUESTIONS CONCERNING THIS PROJECT SHALL BE DIRECTED TO:

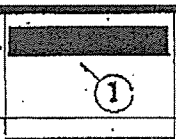
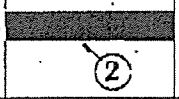
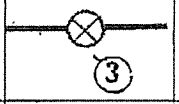
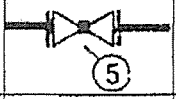
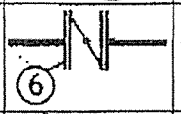
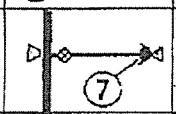
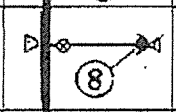
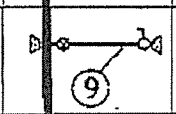
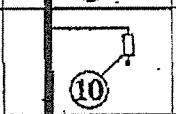
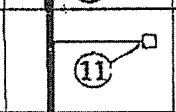
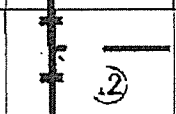
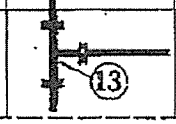
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(TITLE)

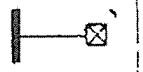
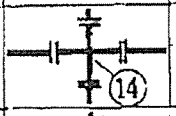
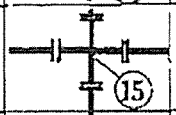
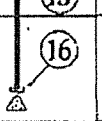
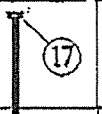
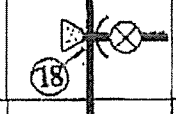
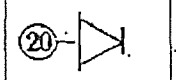
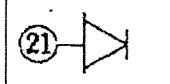
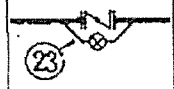
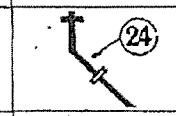
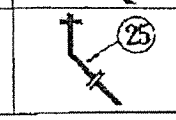
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(FIRM)

LEGEND AND ESTIMATE OF QUANTITIES

1. The Legend and Estimate of Quantities shall be included on the same sheet as the Index Map, in the following format:

QTY	UNIT	LEGEND	DESCRIPTION	STD. DWG.
	L.F.		**INSTALL** ____" C900 (or C905) class____ PVC pipeline	RW-22, RW-25
	L.F.		**INSTALL** ____" CML&C (__ Gauge Minimum) pipeline	RW-33, RW-34
	EA		**INSTALL** ____" Resilient Wedge Valve (F x GT, F x F)	RW-30, RW-31
	EA		**INSTALL** ____" Plug Valve (HIGH PRESSURE SYSTEMS ONLY)	
	EA		**INSTALL** ____" flanged Butterfly Valve (F x F)	RW-30, RW-31
	EA		**CONSTRUCT** 6" residential fire hydrant assembly	RW-7 OR RW-8
	EA		**CONSTRUCT** 6" "super" fire hydrant assembly	RW-5 OR RW-6
	EA		**CONSTRUCT** 4" Blow-Off assembly	RW-4
	EA		**CONSTRUCT** ____" Air and Vacuum Release Assembly	RW-9, RW-10,OR RW-11
	EA		**CONSTRUCT** ____" copper water service assembly	RW-13 OR RW-14
	EA		**INSTALL** ____" cast iron tee	
	EA		**CONSTRUCT** ____" CML & C steel tee	RW-29

APPENDIX "E"

	EA		INSTALL ____ wire test station	
	EA		INSTALL ____" cast iron cross	
	EA		CONSTRUCT ____" CML & C steel cross	RW-29
	EA		INSTALL cast iron end caps (size as noted on plans)	RW-24
	EA		INSTALL blind flange (size as noted on plans)	RW-24
	EA		INSTALL hot-tapping sleeve (size noted on plans)	
	EA		CONSTRUCT tapping flange outlet (size as noted on plans)	RW-29
	EA		INSTALL cast iron reducer (size as noted on plans)	
	EA		CONSTRUCT CML & C steel reducer (size as noted on plans)	
	EA		CONSTRUCT concrete thrust block	RW-26
	EA		INSTALL 4"/6" bypass valve assembly	RW-38
	EA		INSTALL ____° cast iron elbow	
	EA		CONSTRUCT ____° CML & C steel tee	

2. A separate entry is required for each size and type of all materials necessary for this project, including, but not limited to, size and type of pipe, valves, water services, tees, crosses, elbows, and end plugs.

TITLE SHEET SIGNATURE BLOCK

Rancho California Water District			
APPROVED FOR CONSTRUCTION:			
Director of Engineering		Date	
Approvals:			
Design	Date	Contracts	Date	Operations	Date

WATER SYSTEM CERTIFICATION

I certify that the design of the WATER SYSTEM in _____ is in accordance with the WATER SYSTEM MASTER PLAN of Rancho California Water District and that the water service, storage and distribution system will be adequate to supply water to said project.

This certification does not constitute a guarantee that it will supply water to said project at any specific quantities, flows, or pressures for fire protection or any other purpose.

Director of Engineering Date

SIGNATURE BLOCK
(All sheets except first)

Rancho California Water District		
APPROVED FOR CONSTRUCTION:		
Design	Contracts	Operations

CONSTRUCTION APPROVAL BOX/WATER SYSTEM CERTIFICATION
APPENDIX "F"

8/1/91

RANCHO CALIFORNIA WATER DISTRICT
WATER CONSTRUCTION DRAWINGS CHECK LIST

TRACT NO _____ RCWD W O _____

COVER SHEET

VICINITY MAP		
Scale ____		
North Arrow		
Street Names		
Title and Location of Project		
INDEX MAP		
Scale ____		
North Arrow		
Proposed Water/Sewer Line		
Layout of Project		
Appurtenances		
Manhole		
Fire Hydrants		
Detector Checks		
Air Valves		
Blow-Offs		
Pipeline		
Quantities		
Plan Layout/Sheet Reference		
NOTES		
Water System Certification		
Notifications		
General Water Notes		
RCWD Signature Block		

RANCHO CALIFORNIA WATER DISTRICT
WATER CONSTRUCTION DRAWINGS CHECK LIST

TRACT NO _____ RCWD W.O _____

PROFILE

SHEET NO.												
Type, Size, and Station: a. Tees, Crosses, Elbows, Blind Flanges, Plugs, Air Valves, Blowoffs, and Fire Hydrants												
b. Connections to Existing Facilities												
c. In-line Valves												
Stations at Bottom of Profile												
Elevations at Side of Profile												
Existing Ground Surface												
Proposed Finished Ground Surface or Pavement												
Match Lines (Station & Sheet Number)												
Flow Line of Waterline Identified												
Stationing and Flow Line Elevations for:												
a. Tees, Crosses, and Elbows												
b. Grade Breaks												
c. Hot Taps												
d. EC's and BC's												
e. Blow-Offs												
f. Air Valves												
g. End of Pipe												
h. Fire Hydrants												
Pipeline Slopes												
Pipeline Lengths												
Minimum Design Pressure												
Welded Joint Limits												
42" Minimum Cover												
Concrete Encasement Limits												
Separation from Sewer												

RANCHO CALIFORNIA WATER DISTRICT
WATER CONSTRUCTION DRAWINGS CHECK LIST

TRACT NO _____ RCWD W O _____

SHEET NO.										
RCWD Signature Block										
Title Block with Pressure Zone										
Scale (Hor. - 1"=40') (Vert. - 1"=4')										
North Arrow										
Location and Width of Right-of-Way										
Location and Width of Curb Separation										
Location and Width of Easements										
Street Names										
Lot (Parcel) Lines & Numbers All Adjacent Tracts Identified										
Existing/Future Utilities										
Existing/Proposed Improvements										
tch Lines (Station & Sheet umber)										
Existing Water Dwg. Reference										
Pipeline Located per County Standard No. 817										
Separation from Sewer										
Stations and O.D. Elevations of Crossings (water, sewer, storm drain, and reclaimed water)										
Centerline Offset to Proposed Pipeline and Other Utilities										
Centerline Stationing (100' tick marks with Station)										
Centerline Curve Data										
a. Street										
b Pipeline										
Type and Size of Proposed Water Pipeline										
Service Connection (Sizes, oproximate Locations)										

8/1/91

APPENDIX "H"

PLAT REQUIREMENTS:

1. North Arrow
2. Subdivision title with recording data.
3. Lot or Parcel #'s
4. Street Names
5. Right-of-Way widths
6. Township, Section and Range
7. All distances, bearings and references stated with legal description.
8. Point of Beginning
9. Bold and distinct line around proposed easement.
10. Scale
11. RCE / LS signature and stamp.

This Plat is Solely an Aid in Locating the Parcel(s) described in the Attached Document. It is not a Part of the Written Description Therein

Rancho California Water District

EXHIBIT	PREPARED BY:	SUBJECT:	SHEET
B			OF SHEET(S)
		SCALE: 1"= DRAWN BY: DATE: CHECKED BY:	W O #

PLAT REQUIREMENTS:

1. North Arrow
2. Subdivision title with recording data:
3. Lot or Parcel #'s
4. Street Names
5. Right-of-Way widths
6. Township, Section and Range
7. All distances, bearings and references stated with legal description.
8. Point of Beginning
9. Bold and distinct line around proposed easement.
10. Scale
11. RCE / LS signature and stamp.

RANCHO CALIFORNIA WATER DISTRICT

This Plat is Solely a Aid in Locating the Parcel(s) described in the Attached Document. It is not a Part of The Written Description Therein.

EXHIBIT	PREPARED BY:	SUBJECT:	SHEET
B			OF SHEET(S)
SCALE : 1"=	DRAWN BY:	DATE:	CHECKED BY: W.O.#

8/1/91

APPENDIX "H"

Recording Requested by
RANCHO CALIFORNIA WATER DISTRICT

After Recordation Return to:

Rancho California Water District
42135 Winchester Road
Post Office Box 9017
Temecula, CA 92589-9017

Space Above This Line for Recorder's Use

GRANT OF EASEMENT

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

hereby GRANT(S) to RANCHO CALIFORNIA WATER DISTRICT, a public corporation, a perpetual non-exclusive easement and right-of-way for pipeline or pipelines, together with incidental appurtenances, connections, and structures in, over, under, upon, along, through, and across the real property situated in _____ in the County of Riverside, State of California, hereinafter described:

together with the right to grade and improve said right-of-way and to enter upon and to pass and repass over and along said strip of land for the construction, operation, and maintenance of the facilities to be constructed in said easements by the RANCHO CALIFORNIA WATER DISTRICT.

It is understood and agreed that the easements and rights-of-way acquired herein are subject to the right of the owner, his successors and assigns, to use the surface of the land within the boundary lines of said easements and rights-of-way to the extent that such use is compatible with the full and free exercise of said easements and rights-of-way by the RANCHO CALIFORNIA WATER DISTRICT; provided; however, that no fences, block walls or other structures, or other improvements shall be constructed upon, over, and along said easements and rights-of-way without first obtaining the written consent of the RANCHO CALIFORNIA WATER DISTRICT.

No fill or paving of any nature shall be placed or maintained over the surface of the ground, nor shall any earth be removed from the cover of said pipeline after construction, without first obtaining the written approval of the RANCHO CALIFORNIA WATER DISTRICT.

IN WITNESS WHEREOF, this instrument has been executed this _____ day of _____ 2004.

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed by the deed or grant dated _____, 2004 from _____

to Rancho California Water District, a public agency and subdivision in the State of California, is hereby accepted by order of the undersigned officer on behalf of the Board of Directors pursuant to the authority conferred by Resolution No. 2004-5-2 of the Board of Directors adopted on May 13, 2004 and the grantee consents to recordation thereof by its duly authorized officer.

DATED: _____, 2004

_____

_____

_____

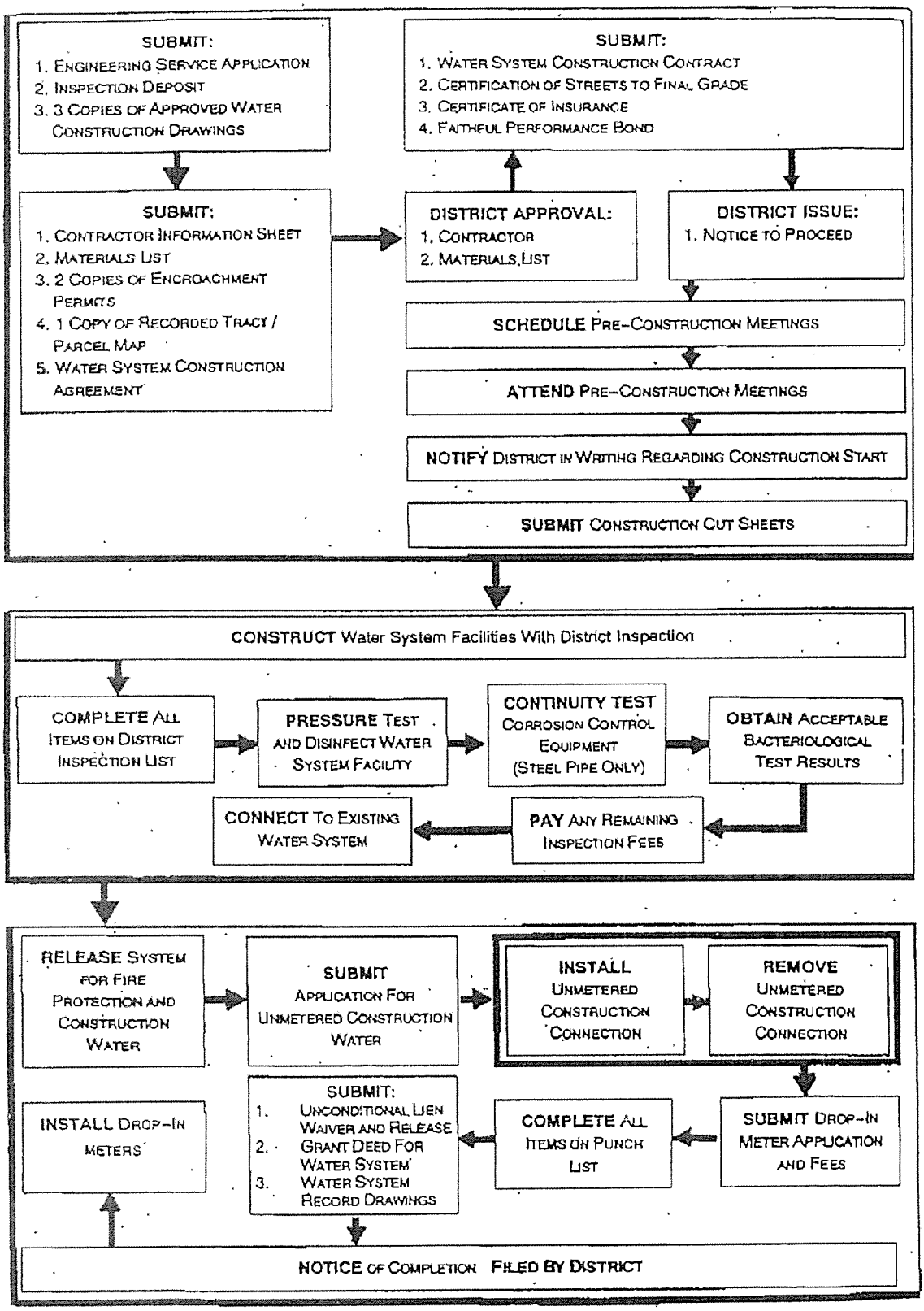
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RANCHO CALIFORNIA WATER DISTRICT

By: _____
Brian J. Brady, General Manager

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FLOWCHART FOR CONSTRUCTION OF WATER FACILITIES



CONSTRUCTION STATUS SHEET

RCWD Job No. _____ Inspector _____

Location: _____

Developer: _____

Contractor: _____

RECEIVED	APPROVED	SUBMITTED
_____	_____	Engineering Service Application
_____	_____	Inspection Deposit
_____	_____	Approved Water Construction Drawings (3 Sets)
_____	_____	Contractor Information Sheet
_____	_____	Materials List
_____	_____	Encroachment Permit (2 Copies)
_____	_____	Recorded Tract/Parcel Map (1 Copy)
_____	_____	Water System Construction Agreement
_____	_____	Contract for Water System Construction
_____	_____	Certification of Streets to Final Grade
_____	_____	Certificates of Insurance
_____	_____	Faithful Performance Bond
_____	_____	Labor and Materials Bond

DATE	
_____	Notice to Proceed issued by District
_____	Preconstruction Meeting Conducted
_____	Received Cut Sheets
_____	Installed Waterlines and all Appurtenances
_____	Completed all Items on Inspectors Deficiency List

DATE

_____	Received City/County Compaction Tests Sign-off
_____	Pressure Tested System
_____	Disinfected System
_____	Samples Taken for Bacteriological Tests
_____	Acceptable Bacteriological Results Obtained
_____	All Remaining Fees and Charges Paid
_____	Connection(s) to Existing System Completed
_____	Water System Released for Fire Protection and Construction Water
_____	Unmetered Construction Water Applications Signed
_____	Unmetered Connections Removed
_____	Ready for Drop-in Meters
_____	Received Drop-in Meter Applications
_____	Received Drop-in Meter Fees
_____	Signed Drop-in Meter Applications

RECEIVED	APPROVED	SUBMITTED
_____	_____	Material and Labor Release
_____	_____	Water System Grant Deed
_____	_____	Record Drawings

DATE

_____	Filed Notice of Completion
_____	Installed Drop-in Meters

CONTRACTOR INFORMATION SHEET

Firm Name and Address: _____

_____

_____

Contractor's License No.: _____

License Class: _____

License Expiration Date: _____

Telephone No.: _____

Emergency Telephone No.: _____

Contractor's Project Manager:

Name: _____

Telephone No.: _____

Emergency Telephone No.: _____

Contractor's Superintendent:

Name: _____

Telephone No.: _____

Emergency Telephone No.: _____

Contractor's Signature: _____ Date: _____

Received: Rancho California Water District:

By: _____ Date: _____

8/1/91

Contractor shall furnish three references for similar projects completed within the past three (3) years.

Contract Amount	Type of Work	Date Completed	Owner (Name & Address)	Person in Charge of Project	Phone Number of Person in Charge

APPENDIX "K"
Sheet 2

RANCHO CALIFORNIA WATER DISTRICT
OF RIVERSIDE COUNTY

WATER SYSTEM CONSTRUCTION AGREEMENT
(DEVELOPER INITIATED/CONTRACTOR INSTALLED)

THIS AGREEMENT is made on this ___ day of _____, 19___, by and between RANCHO CALIFORNIA WATER DISTRICT OF RIVERSIDE COUNTY, a public agency of the State of California, hereinafter designated as the "District" and _____ located at _____, Ph. No. _____, represented by _____ hereinafter designated as the "Developer".

WHEREAS, Developer is planning a development of _____ lot(s) located within the development referenced within records of the County of Riverside, State of California, as: _____ and is further identified on the map attached to and made a part of this Agreement; and

WHEREAS, said subdivision will require a water distribution system to provide domestic water service to the lands referenced above; and

WHEREAS, Developer is desirous of having the District provide domestic water service to said lands and is willing to convey to the District the water distribution system after the construction thereof, contingent upon the District's acceptance of such conveyance on the terms and conditions set forth herein.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. District agrees to provide domestic water service to the aforesaid development in compliance with its applicable rules, regulations,

ordinances, orders when, as, and if Developer has complied with the terms and conditions contained herein.

2. Developer agrees to construct the water system facilities necessary for aforesaid development in accordance with the following terms and conditions:

A. Developer will cause water system facilities to be constructed as shown on the District approved water construction drawings at its expense by a qualified California licensed Contractor. Said Contractor shall be currently licensed by the State of California with either a specialty contractor, "C-34, pipeline license or a General Engineering Contractor, "A" license. Said contractor shall be experienced in the construction of domestic water systems and shall have been reviewed by the District and approved by the District as a qualified Contractor before a contract is signed and construction begins.

B. Said water system facilities will be constructed and installed in full compliance with all applicable rules, regulations and ordinances of District including, but not limited to, District's Standard Specifications and Standard Drawings for Water and Sanitary Sewer Facilities.

C. Water construction drawings for said water system facilities shall be approved by District prior to the presentation thereof to contractors for bidding purposes and said facilities shall be constructed and installed in full compliance with said approved water construction drawings and District specifications referenced in paragraph "B" above.

D. The entire cost of the construction of such domestic system shall be paid by the Developer. Such construction shall be

inspected by District personnel for conformance with the approved drawings and District specifications.

E. The District is not responsible and does not own the water system facilities until they are inspected and approved by the District, the Faithful Performance Bond is executed and accepted by the District, all fees and charges are paid in full, the Unconditional Lien Waiver and Release and the Water System Grant Deed are executed and accepted by the District. Until such time, Developer is responsible for the facilities and is liable for all damage to said facilities.

F. All existing District facilities shall be protected in place. Any damaged District facilities shall be replaced or repaired by Developer at the developer's expense to the satisfaction of District.

G. Developer will, on demand, pay all costs incurred by the District as may be necessary to complete construction including the applicable hourly rate for an inspector for such time as may be required as determined by District to inspect the construction of the water system facilities. Said rates shall be that which is applicable at the time of actual inspection. The inspector shall work under the supervision of District, and shall provide inspection until the water system facilities is accepted and approved as stated herein.

3. Construction shall not begin until District issues the "Notice to Proceed". Prior to District issuing "Notice to Proceed", Developer shall submit the following:

A. Copy of contract between Developer and Contractor verifying cost of water system facility construction.

B. Certification of streets to final grade.

C. Certificates of insurance for contractor and all subcontractors on District form (A rating of A in the latest issue of Best's Key Rating Guide, Property-Casualty, Written by A.M. Best Company).

D. A faithful performance bond with corporate surety or sureties satisfactory to the District (A rating of A in the latest issue of Best's Key Rating Guide, Property-Casualty, Written by A.M. Best Company) on District form*. Said performance bond being for not less than one hundred percent (100%) of the total contract price. Said bond guarantees the completion of the facilities (including submission of the Unconditional Lien Waiver and Release and the Water System Grant Deed) and guarantees the materials and workmanship of the installed domestic water system against failures of any type for one (1) year from the date of the filing of the "Notice of Completion". Said bond shall provide for the payment of all costs incurred by the District for the repair of such failures within the one (1) year guarantee period.

* If separate City/County bonding is required, Developer can submit approved copy of City/County bonding in lieu of District bond.

4. The District will provide construction water and fire protection to the development after the Contractor has completed all items on the District Inspector's Construction Deficiency List, evidence has been submitted indicating County acceptance of compaction, acceptable bacteriological test results have been obtained, and any remaining inspection fees are paid in full.

5. The District will provide drop-in meters to the development and file a Notice of Completion after the following has been submitted:

A. Drop-in Meter Application and all related meter installation and connection fees.

B. Unconditional Lien Waiver and Release for waterline construction.

C. A Grant Deed executed by Developer vesting title of said water system facilities to the District. Said Grant Deed must be on District form and vests title only after the District files the Notice of Completion. In the event water rights are appurtenant to the development, Developer shall also grant said water rights to the District on District form.

D. An Agency Agreement will be required for each parcel if there is not a current Agency Agreement recorded against the property. The Agency Agreement gives the District the right of management of the groundwater resource to the District, for the benefit of all District customers.

6. At District's option, the terms and conditions of this Agreement will become null and void and District will have no further obligations hereunder in the event the construction of the facilities covered herein has not begun within 12 months of the date of this Agreement. In the event construction has not been accepted by District within 24 months of the date of this Agreement, this Agreement and any other related water system facility requirements must then be revised to include any new conditions and to cover all increased costs, including any new fees and charges which may be in effect at that time. No further work will be permitted until all provisions of this paragraph have been fulfilled.

7. Developer agrees to hold the District free and harmless from any expense or liability resulting from the construction or installation of the water system facilities, and further agrees that Developer will indemnify the District and will hold it, its employees and agents free and harmless from and against any and all liabilities for death, injury, loss or damage to persons or property which may arise before, after or during construction of the water system facilities as a result of any work performed by Developer or on its behalf.

8. In the event that either party shall fail to perform its part of this Agreement, and suit shall be commenced, or an attorney employed to enforce the provisions thereof, the party who fails to perform his part of the Agreement agrees to pay any and all costs involved therein, and to pay a reasonable attorney's fee.

9. This Agreement shall be binding upon and inure to the benefit of the successors and assigns of the parties hereto, and each of them.

10. Whenever in this Agreement notice is required to be given, the same shall be given by certified mail, postage prepaid, addressed to the respective parties at the following addresses:

To Rancho California Water District:

Rancho California Water District
General Manager
P.O. Box 174
Temecula, California 92390-0174

To Developer:

_____

_____

_____

_____

11. This Agreement contains all of the terms and conditions agreed upon by the parties hereto, and no other agreements, oral or otherwise, shall be deemed to exist or to bind the parties hereto unless hereafter duly placed in writing and executed by the undersigned.

RANCHO CALIFORNIA WATER DISTRICT

By: _____
General Manager

Date: _____

DEVELOPER

Company: _____

By: _____

Name: _____

Title: _____

Date: _____

TO: Rancho California Water District

From: _____

(address) _____

_____

Subject: Certification of Streets to Final Grade

Tract Map No. _____, or

Parcel Map No. _____

1. There has been executed a "WATER SYSTEM CONSTRUCTION AGREEMENT" for the water mains described above; said Agreement being between:

   a. The Rancho California Water District, hereinafter designated as the "District";

   b. _____
   hereinafter designated as the "Developer"

   All terms and conditions of said Agreement are hereby incorporated by reference.

2. Pursuant to Section 3 of said Agreement, the Developer certifies that all streets requiring water mains are to the required Final Grade and ready for installation of water mains; wherein the Final Grade shall be defined as the finished grade of the street base or sub-base required by the Riverside County Road Department, the City of Temecula, City of Murrieta, or the District.

3. Developer agrees that if there is a change required in the final grade of the street which occurs during or after the construction of the water mains, and requires the relocation of any water facilities, the Developer will make full payment for all costs necessary to relocate said water facilities.

Developer: _____

Address: _____

City/State/Zip: _____

Telephone: _____

Authorized Agent (sign): _____

Name (type): _____

Title: _____

APPENDIX "M"

8/1/91

CERTIFICATE OF INSURANCE

This certifies to the RANCHO CALIFORNIA WATER DISTRICT, located at 42135 Winchester Road, Temecula, California 92590, that the following described policies have been issued to:

Insured: _____

_____

Address: _____

_____

Coverage is provided for the following operation(s)/locations(s):

_____

_____

_____

Type of Insurance		Limits of Liability in thousands (000) Policy Covers Each Occurrence	Aggregate
GENERAL LIABILITY-"Occurrence" Policies Only			
Insurer and Policy No.: _____			
Policy Expiration Date: _____			
[ ] Comprehensive Form [ ] Premises-Operations [ ] Owners & Contractors Protective	BODILY INJURY	$_____	$_____
[ ] Blanket Contractual [ ] Products and/or Completed Operations	PROPERTY DAMAGE	$_____	$_____
[ ] Explosion & Collapse Hazard [ ] Underground Hazard [ ] Broad Form Property Damage [ ] Policy to Include Severability of Interest Clause [ ] Personal Injury Exclusion "C" Removed	BODILY INJURY & PROPERTY DAMAGE COMBINED	$_____	$_____
	PERSONAL INJURY	$	

(Coverage shall be at least as broad as Insurance Services Office Commercial General Liability Coverage, Occurrence Form No. CG0001 (11/88 Revision)

(Coverage shall be at least as broad as Insurance Services Office Commercial General Liability Coverage, Occurrence Form No. CG0001 11 88 Revision)

AUTOMOBILE LIABILITY - "Occurrence" Policies Only

Insurer and Policy No.: _____

Policy Expiration Date: _____

[ ] Comprehensive Form	BODILY INJURY (EACH PERSON)	$_____
[ ] Owned	BODILY INJURY (EACH OCCURRENCE)	$_____
[ ] Hired	PROPERTY DAMAGE	$_____
[ ] Non-Owned	BODILY INJURY PROPERTY DAMAGE COMBINED	$_____

(Coverage shall be at least as broad as Insurance Service Office form number CA0001 (12/90 Revision) covering automobile liability)

EXCESS LIABILITY - "Occurrence" Policies Only

Insurer and Policy No.: _____

Policy Expiration Date: _____

[ ] Umbrella form [ ] Other than umbrella form	BODILY INJURY & PROPERTY DAMAGE COMBINED	$_____
[ ] WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	STATUTORY	$_____ (EACH ACCIDENT)

Insurer and Policy No.: _____

Policy Expiration Date: _____

(Coverage shall be as broad as required by the Labor Code of the State of California and Employer's liability coverage.)

BUILDERS RISK ("ALL RISKS")

(Check appropriate box)

[ ] Coverage shall insure against the following: Fire, lightning, vandalism, malicious mischief, riot and civil commotion, smoke, sprinkler leakage, water damage, sandstorm, hail, and any other act of God in whatever form, *including floods and earthquakes.*

[ ] ON 100% OF COMPLETED VALUE BASIS

[ ] Coverage shall insure against the following: Fire, lightning, vandalism, malicious mischief, riot and civil commotion, smoke, sprinkler leakage, water damage, windstorm, hail, and any other act of God in whatever form, *excepting floods and earthquakes.*

Insurer and Policy No.: _____

_____

_____

_____

Insurer Expiration Date: _____

The following provisions apply:

1) The Rancho California Water District, the Owner's Representative, the Engineer/Architect and their directors, officers, agents, employees, consultants, and volunteers are named as additional insureds on all of the above-described insurance policies, as respects [illegible] out of activities performed by or on behalf of the named insured, products and completed operations of the named insured, premises owned, leased, or used by the named insured, or automobiles owned, leased, hired, or borrowed by the named insured.

2) The above-described liability insurance policies are primary insurance and no insurance held or owned by the designated additional insureds shall be called upon or looked to in order to cover a loss under said policy; the Rancho California Water District shall not be liable for the payment of premiums or assessments under these policies.

3) None of the above-described policies will be suspended, voided, canceled, non-renewed, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Rancho California Water District.

4) The insurers issuing the above-described insurance policies waive all rights of subrogation against the Rancho California Water District, the Owner's Representative, the Engineer/Architect and their directors, officers, agents, employees, consultants and volunteers designated as additional insureds.

5) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Rancho California Water District, the Owner's Representative, the Engineer/Architect and their officers, agents, employees, consultants and volunteers.

6) The named insured's insurance coverage shall apply separately to each insured against whom claim is made or suit is brought except with respect to the limits of the insurer's liability.

7) All policies shall be issued by acceptable insurance companies as determined by the District which satisfy the following requirements:

- The insurance carriers shall be qualified to do the business of insurance in the State of California and shall maintain an agent for process within the State.
- All insurance shall have a policyholder rating of not less than "A" and a financial rating of not less than "VII" according to the latest Best's Key Rating Guide.

Insurance Agency: _____

Address: _____

_____

Authorized Representative: _____

Phone: _____ Date: _____

APPROVED AS TO FORM:
Best Best & Krieger LLP
District Legal Counsel

By: _____

BOND NO. _____

FAITHFUL PERFORMANCE BOND
FOR
WATER SYSTEM CONSTRUCTION AGREEMENT

KNOW ALL PERSONS BY THESE PRESENTS: That WHEREAS, the Rancho California Water District, has entered into a Water System Construction Agreement (All terms and conditions of said Agreement are hereby incorporated by reference) with _____, as Principal, (hereinafter designated as the "Developer"), for construction of:

_____

_____

_____; and

WHEREAS, said Principal is required under the terms of said Agreement to furnish a bond for the faithful performance of said contract.

NOW, THEREFORE, we, _____, as Developer, and _____, as Surety, are held and firmly bound unto the Rancho California Water District (hereinafter called the "District"), in the sum of _____ DOLLARS ($_____) (this amount being not less than one hundred percent (100%) of the total price of the work), lawful money of the United States of America, for payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bonded Developer, its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by and well and truly keep and perform all the undertakings, terms, covenants, and conditions in said Agreement and any alteration thereof, made as therein provided, all within the time and in the manner therein designated in all respects according to their true intent and meaning, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect until Developer has completed construction of the facilities including repair of any damage of existing District facilities and provided District with an Unconditional Lien Waiver and Release and a Water System Grant Deed and has paid all fees and charges.

As a condition precedent to the satisfactory completion of the work (including submission of the Unconditional Lien Waiver and Release, submission of the Water System Grant Deed, payment of all fees and charges, and repair of any damage of existing District facilities), the above obligation shall hold good for a period of one (1) year after the completion of the Work and filing of the Notice of Completion by the District, during which time if Developer shall fail to make full, complete, and satisfactory repair and replacements and totally protect

the District from loss or damage made evident during the period of one (1) year from the date of filing of the Notice of Completion by the District, and resulting from or caused by defective materials or faulty workmanship, the above obligation in penal sum thereof shall remain in full force and effect. Notwithstanding anything in this paragraph to the contrary, the obligation of Surety hereunder shall continue so long as any obligation of Developer remains.

FURTHER, the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or modification of the Agreement, or of the work to be performed thereunder, shall in any way affect its obligations on this bond; and it does hereby waive notice of any change, extension of time, alteration or modification of the Agreement or of work to be performed thereunder.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Developer and Surety named therein, on the _____ day of _____, 19___, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

_____

Developer (seal)

Name: _____

Title: _____

Signature: _____

_____

Surety (seal)

Name: _____

Title: _____

Signature: _____

Address: _____

_____

(SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY)

OVED AS TO FORM:

& Krieger LLP
gal Counsel

_____

APPENDIX "O"

UNMETERED CONSTRUCTION WATER APPLICATION

Temporary connections for house construction are necessary during the drywall installation phase; therefore, the service category of unmetered construction water is available.

The service is available for construction only. This service is not to be used for landscaping or any domestic/commercial use. Unauthorized use is subject to the conditions, as established in Penal Code Section 498, attached, and immediate discontinuance of water service.

A $____ monthly charge covers unmetered water use, standby charge, and periodic inspection by the Meter and Contracts Department personnel.

Prior to connection by the builder, the Contracts Manager will verify the following:

(1) In-tract water system has been tested and disinfected;

(2) Service laterals have been installed with an extra length extending a minimum of two feet above ultimate grade and 2" x 4" stakes (4 feet in length) have been installed to mark the location of the service lateral. Said stakes shall provide for temporary mounting of the extended service lateral with double check valves for the protection of the existing system. All work shall be in accordance with District's Standard Drawing No. RW-12.

At such time as the developer has completed all utility installations and established final grade to the satisfaction of the District, the temporary connection shall be removed, the delivery of water discontinued completely, and the service shall be completed in accordance with the District standard specifications.

After services have been accepted and approved by the Contracts Manager, approximately two weeks is required before meters are installed.

In accordance with the Water System Construction Agreement (all terms and conditions of said Agreement are herein incorporated by reference), the District is not responsible and does not own the water system facilities until said system is transferred to the District. Until such time, Developer is responsible for the facilities and is liable for all damage to said facilities.

I/we hereby acknowledge my/our understanding of the aforementioned conditions and intention of unmetered construction water use.

_____ _____

Service Applicant Signature Date

UNCONDITIONAL LIEN WAIVER AND RELEASE

DATE: _____

TO WHOM IT MAY CONCERN:

The undersigned has been paid in full for all labor, services, equipment or materials furnished to _____ ("Contractor") on the job for the Rancho California Water District ("District") located at _____ in the County of Riverside, State of California ("Property").

The undersigned does hereby waive and release Contractor and District from any and all liability for liens for all materials delivered and labor performed by it, all Mechanic's Liens, including ones that have been recorded, Stop Notices, or any right against a Labor and Material Bond, to or for the Job and the Property on which is it located.

This Unconditional Lien Waiver and Release, Materials and Labor, is made in accordance with Civil Code s3262 and s5 of the Water System Construction Agreement between Rancho California Water District and Developer _____, dated _____.

NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM.

_____ _____
Firms Name

_____ _____
Address

_____ _____
City, State

_____ By: _____
Authorized Representative

W.O. _____

WATER SYSTEM GRANT DEED

FOR VALUABLE CONSIDERATION paid and received,

_____ hereby grant(s) to Rancho California Water District all right, title and interest in the water system improvements for the entire domestic water distribution system facilities for the development referenced with records of the County of Riverside, State of California as _____ and agrees to indemnify the District for any and all claims, liens, causes of action or any type of liability arising from or in any way related to the construction of said facilities.

Said water system improvements are shown in detail on the construction drawings (Sheets ___ thru ___) for said development. This Grant Deed is in accordance with Section 5 of the Water System Agreement between Rancho California Water District and _____, dated _____ and is effective upon Developer providing the Unconditional Lien Waiver and Release and upon filing of the Notice of Completion by the District for the aforementioned water system improvements.

SELLERS for his heirs, executors and administrators, covenants and agrees to warrant and defend this sale of property, goods and chattels, against all and every persons claiming the same.

DATE: _____

_____

BY: _____

SEAL AND NOTARIAL ACKNOWLEDGEMENT

When recorded return to:
RANCHO CALIFORNIA WATER DISTRICT
42135 Winchester Road
Post Office Box 9017
Temecula, CA 92589-9017

AGENCY AGREEMENT NO. _____

THIS AGREEMENT, made this _____ day of _____, 20_____, by and between _____

(hereinafter referred to as "Landowner"), and RANCHO CALIFORNIA WATER DISTRICT, a public corporation organized and existing under Division 13 of the Water Code of the State of California (hereinafter referred to as the "District"), for the property described as follows: _____

_____ (legal description attached);

WITNESSETH:

WHEREAS, the District has power and authority to act as agent for the extraction, diversion, storage and distribution of water owned by other parties; and

WHEREAS, Landowner is the owner of certain land within the District described in Exhibit "A" attached hereto and made a part hereof; and

WHEREAS, said land owned by Landowner is a portion of land found by the United States District Court, **United States of America vs. Fallbrook Public Utility District, et al.**, in the United States District Court, Southern District of California, Southern Division, Case No. 1247, affirmed in part by the United States Court of Appeals for the Ninth Circuit, Case No. 18931, to be land riparian to certain rivers and streams, including the Santa Margarita River and its tributaries, and also which may be land overlaying percolating waters under a court decree entered December 26, 1940 in the case **Rancho Santa Margarita vs. Vail**, 11 Cal.2d 501 (1939), and reinstated by the United States Court of Appeals for the Ninth Circuit in said Case No. 18931; and

WHEREAS, Landowner, without transferring any water right and privilege pertaining to said land, does desire to empower the District to act as its agent and the agent of its successors and assigns to extract, store and divert the water to which it is entitled (hereinafter referred to as "local water") and to supply the same to its land and all other land having, under the laws of the State of California or pursuant to any judgement or contract, a legal right to have said water applied thereon.

NOW, THEREFORE, in consideration of the mutual promises and agreements herein contained, the parties hereto agree as follows:

Section 1. Landowner hereby designates the District its exclusive agent and the exclusive agent of its assigns and successors in interest for the extraction, diversion, storage, blending and distribution of all local water upon or under the lands of Landowner referred to in the recitals hereof for the purpose of putting said local water to beneficial use to the fullest extent of which it is capable for the lands and inhabitants of Landowner and all other lands within the watershed of the Santa Margarita River, and its tributaries on which said local water now and hereafter may be legally applied. It is the intention of Landowner by this Agreement to maintain a binding and permanent arrangement whereby said local water shall be properly maintained and be perpetually delivered and distributed to all of said lands entitled thereto and the subdivisions thereof for the use of Landowner, its assigns and its successors in interest and other owners of such lands.

Section 2. Landowner hereby grants to the District the right to blend local water with imported supplemental water, to distribute imported water to Landowner in lieu of or in addition to the distribution of local water and to store imported water under the lands of Landowner.

Section 3. Landowner agrees that all local water to be used by Landowner within the District shall be obtained from the District or its assigns and successors in interest. Landowner shall not divert or extract within or outside the boundaries of the District local water for Landowner's own use within the District nor shall Landowner supply local water for use within the District by others. Landowner further agrees not to divert or extract within the District local water for use by Landowner or others outside the District. Landowner reserves to itself, its assigns and its successors in interest all water rights and privileges presently owned and which may be hereinafter acquired pertaining to said land and nothing in this Agreement shall be construed as appropriating or dedicating said water rights or any water to public use.

Section 4. This agency shall be effective and irrevocable in perpetuity and the same shall be deemed an agency coupled with an interest, provided, however, this Agreement shall terminate and be of no further force or effect upon a determination by any court of competent jurisdiction in an appropriate action that the method of extraction and distribution of said local water herein provided is not a proper method of exercising the riparian and other water rights of Landowner.

Section 5. The District agrees to divert, extract, store and distribute local water for the benefit of Landowner. The District agrees to acquire by lease, purchase, gift or otherwise all wells and water distribution facilities useful and necessary to extract, store and distribute said local

water to the lands and inhabitants entitled thereto in accordance with this Agreement. Nothing contained herein shall prohibit the District from exercising any of its powers granted by the California Water District Law nor shall the District be prohibited from acquiring supplemental water for distribution to all lands within the District.

Section 6. This Agreement shall not be assignable by the District without the written consent of Landowner; provided, however, the District may contract with any municipal, public or private corporation for the management and operation of any water facilities owned by or leased by the District.

Section 7. The District shall have full control of the allocation of all costs of acquisition and construction of District facilities using any method or a combination of methods, as set forth in the California Water District Law, or raising funds to defray said costs. The District may adopt such rules and regulations for the distribution of local water as it deems necessary. The District may allocate the distribution of the available local water in any manner authorized in the California Water District Law or the rules and regulations of the District adopted pursuant to said law. Rates and charges for the distribution of local water may be made and shall be payable by Landowner, its assigns and the successors in interest as determined by the Board of Directors of the District from time to time; provided, however, said rates and charges shall not be so set to discriminate between water users in substantially the same classification.

SECTION 8. Neither the District nor the Landowner warrants the quantity or quality of the local water to be extracted and distributed by the District.

SECTION 9. The District and Landowner intend that the provisions of the Agency Agreement shall constitute covenants that run with the land and shall inure to the benefit of and be binding upon the assigns and successors in interest of the District and Landowner. The District and Landowner therefore agree as follows: (a) The District is the owner of land and water distribution facilities within its boundaries which will be benefitted by the Agency Agreement. The District land benefits from the Agency Agreement because wells located on the District land have a more assured reliable water supply. The District land particularly benefitted by the terms of this Agency Agreement is described in Exhibit "B" of that certain Agency Agreement recorded in the Office of the County Recorder of Riverside as Document No. 398782 by the District on October 22, 1992, which is incorporated herein by reference. Landowner's land benefits from the rights set forth in Sections 1 and 5 above to connect to the District's water system. The covenants of the Agency Agreement also benefit all other landowners within th boundaries of the District who have similarly covenanted with the District, by securing a reliable region-wide water source, and its attendant increased property values. The boundaries of the District are described in Exhibit "C" of that certain Agency Agreement recorded in the Office of the County Recorder of Riverside as Document No. 398782 by the District on October 22, 1992, which is incorporated herein by reference. Landowner is the owner of land which is affected by the covenants of this Agency Agreement and is described in Exhibit "A". (b) The covenants of this Agency Agreement shall be binding upon the successive owners of the land described in Exhibit "A" or any interest therein or a portion thereof for the benefit of the District land and facilities and other landowners who have similarly covenanted with the District. (c) The parties agree that the acts required by this Agency Agreement relate to the use, repair, maintenance and improvement of the land described in Exhibit "A". (d) The parties agree that the Agency Agreement shall be recorded at the County Recorder's Office of Riverside County. It is further agreed that this Agency Agreement shall not be effective until it is recorded at the office of the Riverside County Recorder, and consent for recordation is hereby given.

SECTION 10. In the event Landowner shall convey, transfer or in any manner alienate title to all or any portion of the real property of Landowner located within the District, the successors in interest in the fee simple estate or any lessor estate of said real property shall execute an Agency Agreement in the identical form hereof as a condition precedent to said transfer; provided, however, non-compliance with said condition shall in no wise be construed to annul or terminate the agency created hereby and all rights and duties hereunder shall be binding on the assigns and successors in interest of the real property of Landowner located within the District.

SECTION 11. If any one or more of the terms, provisions, covenants or conditions of this Agency Agreement shall to any extent be declared invalid, unenforceable, void or voidable for any reason whatsoever by a court of competent jurisdiction, the finding or order or decree of which becomes final, none of the remaining terms, provisions, covenants and conditions of this Agency Agreement shall be affected thereby and each provision of this Agency Agreement shall be valid and enforceable to the fullest extent permitted by law.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

_____
("Landowner")

(CORPORATE SEAL)

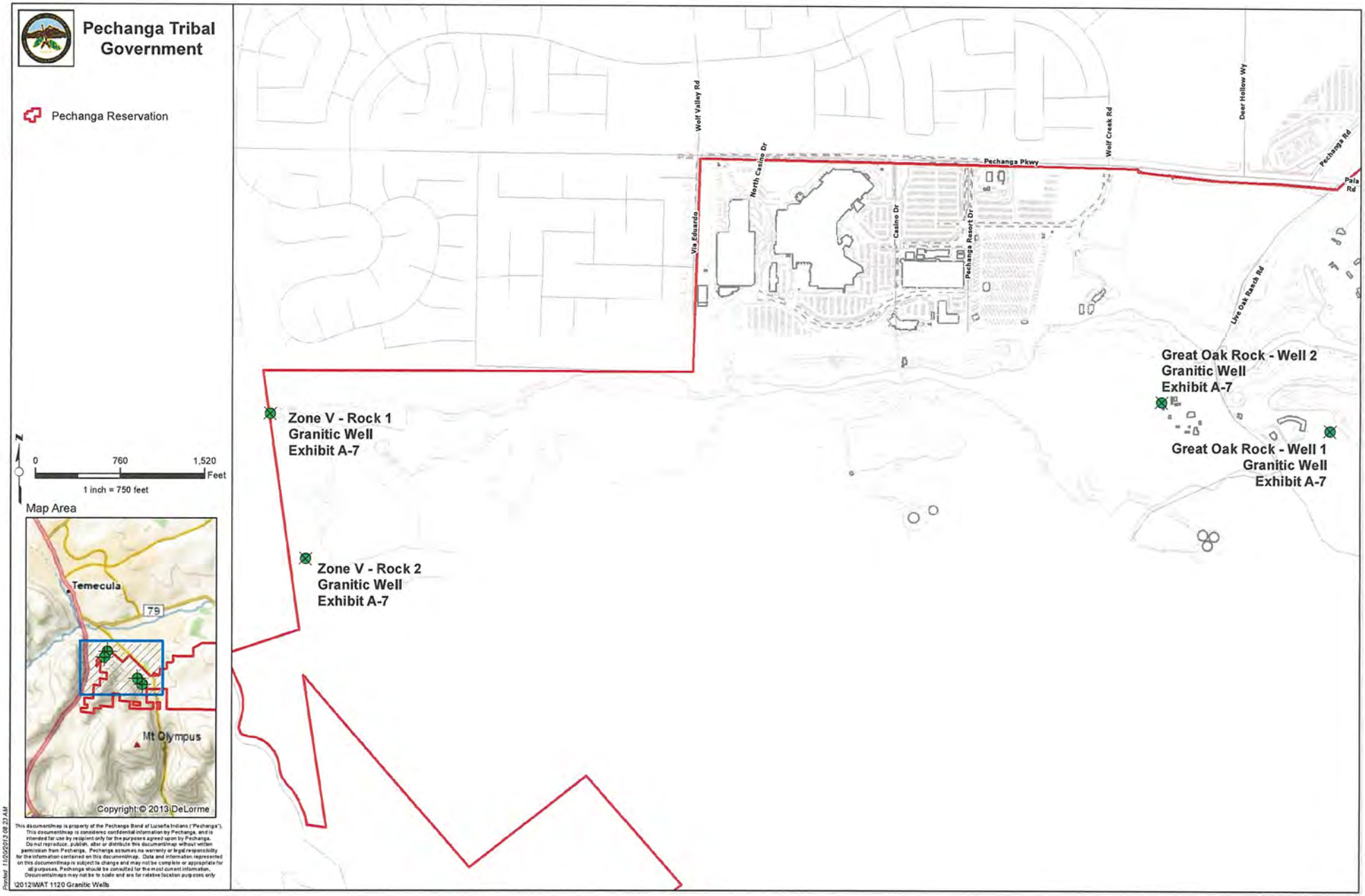
_____

ATTEST:

Secretary: _____ RANCHO CALIFORNIA WATER DISTRICT

By: _____
General Manager District

Exhibit A-6


Pechanga Tribal Government
Pechanga Reservation
Wolf Valley Rd
North Casino Dr
Pechanga Pkwy
Wolf Creek Rd
Deer Hollow Wy
Pechanga Rd
Pala Rd
Via Eduardo
Casino Dr
Pechanga Resort Dr
Live Oak Ranch Rd
Zone V - Rock 1
Granitic Well
Exhibit A-7
Zone V - Rock 2
Granitic Well
Exhibit A-7
Great Oak Rock - Well 2
Granitic Well
Exhibit A-7
Great Oak Rock - Well 1
Granitic Well
Exhibit A-7
N
0
760
1,520
Feet
1 inch = 750 feet
Map Area
Temecula
79
Mt Olympus
Copyright © 2013 DeLorme
This document/map is property of the Pechanga Band of Luiseño Indians ("Pechanga"). This document/map is considered confidential information by Pechanga, and is intended for use by recipient only for the purposes agreed upon by Pechanga. Do not reproduce, publish, alter or distribute this document/map without written permission from Pechanga. Pechanga assumes no warranty or legal responsibility for the information contained on this document/map. Data and information represented on this document/map is subject to change and may not be complete or appropriate for all purposes. Pechanga should be consulted for the most current information. Documents/maps may not be to scale and are for relative location purposes only
\2012\WAT 1120 Granitic Wells
Printed: 11/20/2013 08:23 AM

AMENDMENT NO. 1
TO
RECYCLED WATER AGREEMENT (AGREEMENT NO. 04-07)

This Amendment No 1. To Recycled Water Agreement (Agreement No. 04-07) (this "***Amendment***") is made and entered into this 29th day of November, 2017, by and between **EASTERN MUNICIPAL WATER DISTRICT** ("***District***") and **THE PECHANGA BAND OF LUISEÑO MISSION INDIANS** ("***Customer***"), whose address is 45000 Pechanga Parkway, Temecula CA 92592.

RECITALS

WHEREAS, District and Customer are parties to that certain Recycled Water Agreement (Agreement No. 04-07), dated January 8, 2008 (the "***Agreement***"); and

WHEREAS, Customer has requested that the Agreement be amended to provide for a longer term and to confirm Customer's right to transfer to a third party Customer's right to receive any unused portion of Customer's Annual Allocation from time to time;

WHEREAS, after due consideration of such request, the District has determined that it is in the interest of the District to agree to such amendments; and

WHEREAS, District and Customer have determined that, for purposes of implementing such amendments, the Agreement shall be amended as provided herein;

NOW, THEREFORE, in consideration of the above recited premises, together with other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, and intending legally to be bound, the parties agree as follows:

AGREEMENT

1. Unless otherwise defined herein, capitalized terms used in this Amendment shall have the meanings respectively assigned to such terms in the Agreement.

2. The Agreement is amended as follows:

   (a) Section 1 (Agreement Term) is amended by deleting the existing text in its entirety and substituting the following therefor:

   > "The term of this Agreement shall begin on January 1, 2008 and shall continue for an initial period of fifty (50) years and for two additional periods of twenty (20) years each, for an aggregate period of ninety (90) years, unless (i) terminated by District, solely due to a good faith determination that there is or will be a shortage of supply of recycled water sufficient to meet the requirements of this Agreement, at the end of the initial fifty (50) year period or at the end of the first additional twenty (20) year period by written notice delivered to Customer no

later than three (3) years prior to the expiration of such period and setting out in reasonable detail the basis for the underlying determination of shortage of supply, or (ii) earlier terminated pursuant to Section 15."

(b) Sub-section A of Section 2 (Assignment) is amended by deleting the existing text in its entirety and substituting the following therefor:

"Customer may at any time, without the consent of the District, sell, assign, or transfer to a third party Customer's right to receive any portion of the Annual Allocation specified in Section 12.A, for such period and subject to such terms and conditions as may be determined between Customer and such third party; and the District shall cooperate with Customer and such third party in the implementation of such sale, assignment and transfer following receipt of written notice thereof; provided, however, that (i) as between District and Customer, Customer shall be responsible for making all arrangements for delivery to the third party of the sold, assigned or transferred Annual Allocation quantities, (ii) Customer shall remain liable to District for payment for Annual Allocation quantities delivered to such third party in the event such third party fails to make such payment in accordance with the terms of this Agreement, and (iii) such third party shall agree with Customer to be bound by the terms and conditions of this Agreement to the extent of such sale, assignment or transfer. Except as provided by the foregoing, Customer may not sell, sublease, assign or transfer its rights or delegate its responsibilities or obligations hereunder without District's prior written consent, which consent shall not be unreasonably withheld."

3. All other covenants, terms and conditions of the Agreement not explicitly modified by this Amendment remain in full force and effect.

4. The undersigned individuals hereby warrant and represent that they each have full legal authority to sign this Amendment and bind the parties hereto.

IN WITNESS WHEREOF, the parties have caused this Amendment No. 1 To Recycled Water Agreement (Agreement No. 04-07) to be executed as of the date first above written.

EASTERN MUNICIPAL WATER DISTRICT

By: _____

Paul D. Jones II
General Manager

PECHANGA BAND OF LUISEÑO MISSION INDIANS

By: _____

Mark Macarro
Tribal Chairman

EXECUTION VERSION

RECYCLED WATER TRANSFER AGREEMENT

THIS RECYCLED WATER TRANSFER AGREEMENT (this "***Agreement***") is made and entered into as of November 29, 2017, by and between **PECHANGA BAND OF LUISEÑO MISSIONS INDIANS,** a federally recognized Indian Tribe ("***Pechanga***"), and **RANCHO CALIFORNIA WATER DISTRICT**, a California water district organized pursuant to California Water Code section 34000 *et seq.* ("***RCWD***").

RECITALS

1. On January 8, 2008, Pechanga and Eastern Municipal Water District ("***EMWD***") entered into a Recycled Water Agreement (Agreement No. 04-07) pursuant to which EMWD agreed to sell Pechanga recycled water ("EMWD Recycled Water") in the amount of one thousand (1,000) acre feet per year ("AFY") under the terms and conditions set forth in such agreement.

2. On February 28, 2008, RCWD and EMWD entered a Wheeling Agreement for Recycled Water pursuant to which RCWD agreed to wheel the EMWD Recycled Water to Pechanga.

3. On August 5, 2009, EMWD and Pechanga executed Amendment No. 1 to the Recycled Water Agreement (Agreement No. 04-07) pursuant to which EMWD agreed that Pechanga may, without the consent of EMWD, sell, assign or transfer to a third party Pechanga's right to receive any portion of its annual allocation of recycled water. The amendment and the Recycled Water Agreement are collectively referred to as "Recycled Water Agreement."

4. The Parties, as a part of a comprehensive water rights settlement, seek to enable RCWD to use a portion of Pechanga's allocation of EMWD Recycled Water, such portion to be equal to, subject to Section 2(d), not less than three hundred (300) AFY, and not more than four hundred seventy five (475) AFY in any given Year.

AGREEMENT

In consideration of the respective representations, warranties, covenants and agreements contained in this Agreement, and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, the Parties agree as follows:

1. **Definitions.** Capitalized terms used in this Agreement shall have the meanings set

forth below.

"***AFY***" means acre-feet per Year.

"***Amended GMA***" means the "Amended and Restated Groundwater Management Agreement" between Pechanga and RCWD, setting forth terms and conditions governing their joint management of groundwater pumping from the Wolf Valley Groundwater Basin.

"***Agreement***" means this Recycled Water Transfer Agreement by and between the Pechanga and RCWD, dated as of the date first written above.

"***EMWD***" means Eastern Municipal Water District, a municipal water district organized and existing in accordance with the Municipal Water District Act of 1911, Division 20 of the Water Code of the State of California, as amended.

"***EMWD Recycled Water***" means water EMWD is to deliver to Pechanga pursuant to the EMWD Recycled Water Agreement.

"***EMWD Recycled Water Agreement***" means the Recycled Water Agreement by and between Pechanga and EMWD, dated January 8, 2008 (Agreement No. 04-07), as amended by Amendment No. 1.

"Enforceability Date" means the date on which the Secretary publishes in the Federal Register the statement of findings described in section 3407(e) of the Act.

"***Party***" means any entity represented by a signatory to this Agreement and "***Parties***" means more than one of such entities.

"***Pechanga***" means the Pechanga Band of Luiseño Mission Indians, a federally recognized sovereign Indian tribe that functions as a custom and tradition Indian tribe, acting on behalf of itself and its members (but not members in their capacities as Allottees).

"***RCWD***" means the Rancho California Water District, organized pursuant to California Water Code section 34000 *et seq.* and includes all real property owners for whom RCWD acts as an agent pursuant to an agency agreement.

"***Section***" means a section or subsection of this Agreement.

"***Year***" means a calendar year of January through December.

2. Transfer of Right to Receive Recycled Water.

(a) Subject to Section 2(d), Pechanga hereby transfers its right to receive a portion of its allocation of EMWD Recycled Water to RCWD. Subject to Section 2(d), RCWD shall be entitled to receive an amount of EMWD Recycled Water not less than three hundred (300) AFY and not more than four hundred seventy-five (475) AFY of EMWD Recycled Water.

(b) On January 31 of each Year, Pechanga shall notify RCWD of the estimated annual amount of EMWD Recycled Water that is available to RCWD for such Year. RCWD shall, within twenty (20) days, confirm to Pechanga and EMWD its receipt of the notice and the amount of EMWD Recycled Water that RCWD will accept that Year.

(c) RCWD shall make contractual arrangements with EMWD to order, schedule, receive and pay for EMWD Recycled Water in a manner that will: (*x*) ensure timely ordering, scheduling and payment of the EMWD Recycled Water that RCWD will accept in such Year; (*y*) not interfere in any way with deliveries of EMWD Recycled Water to Pechanga in such Year; and (*z*) ensure that Pechanga has no responsibility for any charges, fees or costs of any kind associated with the EMWD Recycled Water that RWCD will accept in such Year.

i. RCWD shall provide to Pechanga a copy of all contractual arrangements entered into with EMWD in accordance with this Section 2(c).

ii. Any contractual arrangement with EMWD entered into by RCWD in accordance with Section 2(c) shall include a contractual provision providing that Pechanga shall timely receive a copy of all notices, correspondence, and other written documentation exchanged between the parties thereto in accordance therewith.

(d) In the event EMWD reduces the total amount of EMWD Recycled Water in accordance with section 12(D) of the Recycled Water Agreement, the amount of EMWD Recycled Water transferred to RCWD as set forth in Section 2(a) shall be reduced as follows:

i. Any reduction by EMWD up to one hundred seventy-five (175) AFY shall reduce the maximum amount of transferred EMWD Recycled Water on an acre-foot by acre-foot basis. By way of example, if EMWD were to reduce Pechanga's total allocation of EMWD Recycled Water from one thousand (1,000) AFY to eight hundred fifty (850) AFY, then the maximum of water transferred in accordance with Section 2(a) shall be reduced by one hundred fifty (150) AFY from four hundred seventy-five (475) AFY to three hundred twenty-five (325) AFY;

ii. Any reduction by EMWD in excess of one hundred seventy-five (175) AFY shall: (*x*) reduce the maximum amount transferred from four hundred seventy-five (475) AFY to the same amount as the minimum amount transferred in accordance with Section 2(a); (*y*) reduce the minimum amount transferred from three hundred (300) AFY to an amount equal to three hundred (300) AFY times the percentage that the total EMWD reduction represents to the original total allocation of EMWD Recycled Water to Pechanga. By way of example, if EMWD were to reduce Pechanga's total allocation of EMWD Recycled Water from one thousand (1,000) AFY to seven hundred fifty (750) AFY, then the minimum and maximum amount to be transferred in accordance with Section 2(a) shall be equal to three hundred (300) AFY minus (three hundred (300) AFY times .25), or two hundred twenty five (225) AFY. Pechanga's remaining entitlement would be equal to seven hundred fifty (750) AFY minus two hundred twenty-five (225) AFY, or five hundred twenty-five (525) AFY.

3. **Effective Date.** This Agreement shall be effective on the Enforceability Date.

4. **Term.** This Agreement shall have the same term as Amendment No. 1 to the Recycled Water Agreement and shall be extended to the extent said Agreement is extended.

5. **Termination.** In the event the Amended Groundwater Management Agreement is terminated for any reason, either in accordance with its terms or pursuant to an arbitration decision or court order, this Agreement shall automatically terminate fourteen (14) days after such termination of the Amended Groundwater Management Agreement without further action by either Party unless the Parties otherwise agree.

6. **Representations and Warranties.**

(a) **Representations and Warranties of Pechanga.** Pechanga represents and

warrants to RCWD as follows:

i. Pechanga's execution, delivery and performance of this Agreement have been duly authorized by all necessary action of Pechanga.

ii. Pechanga is not a party to any agreement, covenant or other agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

iii. This Agreement constitutes a legal, valid, and binding obligation of Pechanga enforceable against it in accordance with its terms.

iv. There is no pending or threatened action or proceeding against or affecting Pechanga before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of Pechanga or the ability of Pechanga to perform its obligation under this Agreement.

v. To the best of Pechanga's knowledge, the validity of this Agreement, the execution and delivery by it of this Agreement and the performance by it of its obligations hereunder will not require any permit, license, certificate, waiver, notice, approval, consent or similar authorization from any federal, state or local judiciary, regulatory or administrative body.

(b) **Representations and Warranties of RCWD.** RCWD represents and warrants to Pechanga as follows:

i. RCWD's execution, delivery and performance of this Agreement have been duly authorized by all necessary action of RCWD.

ii. RCWD is not a party to any agreement, covenant or other agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

iii. This Agreement constitutes a legal, valid, and binding obligation of RCWD enforceable against it in accordance

with its terms.

iv. There is no pending or threatened action or proceeding against or affecting RCWD before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of RCWD or the ability of RCWD to perform its obligation under this Agreement.

v. To the best of RCWD's knowledge, the validity of this Agreement, the execution and delivery by it of this Agreement and the performance by it of its obligations hereunder will not require any permit, license, certificate, waiver, notice, approval, consent or similar authorization from any federal, state or local judiciary, regulatory or administrative body.

(c) **Breach of Representation or Warranty.** Any representation or warranty made by a Party in this Section 6 that shall prove to have been incorrect in any material respect as of the effective date of this Agreement shall be deemed to constitute a material breach of this Agreement by the Party giving such representation or warranty.

7. **Dispute Resolution.**

(a) Pechanga is a sovereign Indian Nation, and as such it possesses sovereign immunity from suit. Nothing in this Agreement is or shall be deemed to be a waiver of Pechanga's sovereign immunity from suit, which immunity is expressly asserted, except that Pechanga agrees to waive its immunity for the limited and sole purposes of compelling arbitration by RCWD and of enforcing arbitration of any decision rendered pursuant to the terms and conditions of this Agreement.

(b) Prior to pursuing any arbitration, each Party shall, whenever possible, attempt to resolve any grievances, complaints or disputes that are brought to its attention by the other Party. Each Party shall notify the other Party in writing of any material dissatisfaction with the other Party's performance at its address of record. Within ten (10) days of receipt of such notice, unless the problem has been resolved, the Parties shall meet and confer in good faith to determine what remedial action, if any, is necessary.

(c) In the event of any dispute between the Parties hereto arising under this Agreement, such dispute shall be submitted to mandatory binding arbitration, to be conducted in Riverside County, CA, pursuant to the Commercial Rules of the

American Arbitration Association. Each Party shall initially pay its own arbitration costs and expenses, but the arbitrator may, in its discretion, include such costs and expenses, together with reasonable attorneys' fees, as part of the award to the prevailing party. Any award of the arbitrators may be submitted for enforcement to a court of competent jurisdiction located in Riverside County, CA.

(d) Judicial remedies are specifically limited to the enforcement of an award of money damages by arbitration pursuant to this Agreement; provided that the arbitrator(s) and/or court shall have no authority or jurisdiction to execute against any assets of Pechanga except to award the prevailing party the amounts paid or payable under this Agreement, costs of arbitration, court costs to enforce the arbitration decision and legal fees incurred during arbitration and any subsequent court proceedings to enforce the arbitration decision.

(e) Pechanga's limited waiver of its sovereign immunity as provided herein extends only to an arbitration, action to compel arbitration and action to confirm or enforce arbitration awards by RCWD, and no other person or entity, for money damages in an amount not to exceed the amounts paid or payable under this Agreement, for Pechanga's breach of this Agreement.

8. **Release of Information.** All press releases relating to this Agreement or the implementation of the transactions hereunder, and the method of the release for publication thereof, will be subject to the prior approval of both Parties, which approval shall not be unreasonably withheld.

9. **Assignment.** Neither Party may assign either this Agreement or any of its rights, interests or obligations hereunder without the prior written approval of the other Party, provided, however, that Pechanga may assign this Agreement without the prior consent of RCWD to another tribal entity of Pechanga if the assignee assumes all of Pechanga's obligations under this Agreement and otherwise agrees to be bound by and consents to each of the provisions of this Agreement.

10. **Third Parties.** This Agreement shall not be binding upon, inure to the benefit of or confer rights upon any person or entity that is not a Party to this Agreement.

11. **Entire Agreement.** This Agreement, together with the Exhibits, constitutes the entire agreement and understanding of the Parties in respect of the subject matter hereof and supersedes all prior understandings, agreements, statements, contracts or representations by or among the Parties and their agents, written or oral, to the extent they relate in any way to the subject matter hereof.

12. **Notice.** All notices, requests, payments, reports and other communications provided for or permitted to be given or made under this Agreement must be in writing and must be given by personal delivery, or by certified or registered United States mail (postage prepaid, return receipt requested), addressed as follows or addressed to such other address or addressee as the Party to receive such notice shall have designated by written notice as required by this Section 12. Notice or payment shall be deemed to have been effective and properly delivered or made on the earlier of (a) if given by personal delivery, the date of actual delivery, (b) if sent by certified or registered mail, the first business day that is at least four (4) calendar days after the notice or payment has been deposited in the U.S. mails in accordance with this Section 12:

As to Pechanga:

Mark Macarro
Chairman
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

With a copy to:

General Counsel
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

and to:

Donald R. Pongrace
Akin Gump Strauss Hauer & Feld LLP
1333 New Hampshire Avenue, NW
Suite 400
Washington, DC 20036

As to RCWD:

General Manager
Rancho California Water District
42135 Winchester Road
Temecula, CA 92590

With a copy to:

James Gilpin
Best Best & Krieger LLP

655 West Broadway, 15th Floor
San Diego, CA 92101

13. **Service of Process.** Any Party may make service on any other Party by sending a copy of the process by certified U.S. mail, as provided under Federal Rules of Procedure 4(c), to the Party to be served at the address and in the manner provided for the giving of notices in Section 12.

14. **Construction.** This Agreement has been freely and fairly negotiated among the Parties. If an ambiguity or question of intent or interpretation arises, this Agreement will be construed as if drafted jointly by the Parties and no presumption or burden of proof will arise favoring or disfavoring any Party because of the authorship of any provision of this Agreement. The words "include," "includes," and "including" will be deemed to be followed by "without limitation." The word "person" includes individuals, entities, regulators and other governmental bodies. The words "this Agreement," "herein," "hereof," "hereby," "hereunder," and words of similar import refer to this Agreement as a whole and not to any particular subdivision unless expressly so limited.

15. **Headings.** The Section headings contained in this Agreement are inserted for convenience only and shall not affect in any way, and shall not be considered in, the meaning or interpretation of this Agreement.

16. **Amendments; Waivers.** No amendment, modification, waiver, replacement, termination or cancellation of any provision of this Agreement will be valid, unless the same is in writing and signed by Pechanga and RCWD. No waiver by a Party of any breach by the other Party of any of the terms or conditions of this Agreement, or of any right of such Party hereunder, shall be construed as a waiver of any subsequent breach by the other Party of the same or other terms or conditions, or of the future exercise by such Party of the same or any other right hereunder. Neither the failure nor any delay on the part of a Party to exercise any right or remedy under this Agreement will operate as a waiver thereof, nor does any single or partial exercise of any right or remedy preclude any other or subsequent exercise of the same or of any other right or remedy.

17. **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of California, without regard to any choice of laws or conflicts of laws provisions which would direct the application of the laws of any other jurisdiction. The venue for arbitration proceedings shall be Riverside County, California.

18. **Severability.** The provisions of this Agreement will be deemed severable and the invalidity or unenforceability of any provision will not affect the validity or enforceability of the other provisions hereof; provided, however, that, if any provision of this Agreement, as applied to a Party or to any circumstance, is determined not to be

enforceable in accordance with its terms, the Parties agree that the provision may be modified in a manner consistent with its objectives such that it is enforceable, and/or specific words or phrases may be deleted, and in its modified form, such provision will then be enforceable and will be enforced.

19. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be considered an original but all of which, taken together, shall constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and dated as of the date first above written.

PECHANGA BAND OF LUISEÑO MISSION INDIANS

By: _____
Tribal Chairman

Date: 11/29/17

Approved as to form:

By: _____
General Counsel

RANCHO CALIFORNIA WATER DISTRICT

By: _____
General Manager

Date: 11/29/17

Approved as to form:

By: _____
General Counsel

EXECUTION VERSION

RECYCLED WATER SCHEDULING AGREEMENT

THIS RECYCLED WATER SCHEDULING AGREEMENT (this "***Agreement***") is made and entered into as of November 29, 2017, among the **PECHANGA BAND OF LUISEÑO MISSIONS INDIANS,** a federally recognized Indian Tribe ("***Pechanga***"), **RANCHO CALIFORNIA WATER DISTRICT**, a California water district organized pursuant to California Water Code section 34000 *et seq.* ("***RCWD***") and **EASTERN MUNICIPAL WATER DISTRICT**, a municipal water district organized and existing in accordance with the Municipal Water District Act of 1911, Division 20 of the Water Code of the State of California, as amended ("***EMWD***").

RECITALS

1. On January 8, 2008, Pechanga and EMWD entered into a Recycled Water Agreement (Agreement No. 04-07) pursuant to which EMWD agreed to sell Pechanga recycled water ("EMWD Recycled Water") in the amount of one thousand (1,000) acre feet per year ("AFY") under the terms and conditions set forth in such agreement.

2. On February 28, 2008, RCWD and EMWD entered a Wheeling Agreement for Recycled Water pursuant to which RCWD agreed to wheel the EMWD Recycled Water to Pechanga.

3. On August 5, 2009, EMWD and Pechanga executed Amendment No. 1 to the Recycled Water Agreement (Agreement No. 04-07) pursuant to which EMWD agreed that Pechanga may, without the consent of EMWD, sell, assign or transfer to a third party Pechanga's right to receive any portion of its annual allocation of recycled water. The amendment and the Recycled Water Agreement are collectively referred to as "Recycled Water Agreement."

4. As a part of a comprehensive water rights settlement, RCWD and Pechanga have entered into the Recycled Water Transfer Agreement.

5. The Parties seek to establish through this Agreement the protocol for scheduling, ordering and delivering the portion of Pechanga's allocation of EMWD Recycled Water that Pechanga has agreed to transfer to RCWD pursuant to the Recycled Water Transfer Agreement.

AGREEMENT

In consideration of the respective representations, warranties, covenants and agreements contained in this Agreement, and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, the Parties agree as follows:

1. **Definitions.** Capitalized terms used in this Agreement shall have the meanings set forth below.

"***AFY***" means acre-feet per Year.

"***Agreement***" means this Recycled Water Scheduling Agreement by and between the Pechanga, RCWD and EMWD, dated as of the date first written above.

"***Delivery Point***" means the point for delivery of EMWD Recycled Water to RCWD pursuant to this Agreement, as depicted as Point of Connection "A" on the map attached as Exhibit D-1.

"***EMWD***" means Eastern Municipal Water District, a municipal water district organized and existing in accordance with the Municipal Water District Act of 1911, Division 20 of the Water Code of the State of California, as amended.

"***EMWD Recycled Water***" means water EMWD is to deliver to Pechanga pursuant to the EMWD Recycled Water Agreement.

"Enforceability Date" means the date on which the Secretary publishes in the Federal Register the statement of findings described in section 3407(e) of the Act.

"***Exhibit***" means an exhibit to this Agreement, each of which is hereby incorporated herein by this reference.

"***Party***" means any entity represented by a signatory to this Agreement and "***Parties***" means more than one of such entities.

"***Pechanga***" means the Pechanga Band of Luiseño Mission Indians, a federally recognized sovereign Indian tribe that functions as a custom and tradition Indian tribe, acting on behalf of itself and its members (but not members in their capacities as Allottees).

"***RCWD***" means the Rancho California Water District, organized pursuant to California Water Code section 34000 *et seq.* and includes all real property owners for whom RCWD acts as an agent pursuant to an agency agreement.

"***Recycled Water Agreement***" means the Recycled Water Agreement (Agreement No. 04-07)" dated January 8, 2008, as amended by "Amendment No. 1 to Recycled Water

Agreement (Agreement No. 04-07)" between Pechanga and EMWD, providing for the sale and purchase of recycled water.

"***Recycled Water Transfer Agreement***" means the "Recycled Water Transfer Agreement", between Pechanga and RCWD, which is hereby incorporated by reference.

"***Section***" means a section or subsection of this Agreement.

"***Year***" means a calendar year of January through December.

2. List of Exhibits.

Exhibit No.	Exhibit Name
D-1	Delivery Point

3. Scheduling Receipt and Payment for EMWD Recycled Water.

(a) The Parties agree that to facilitate the use of EMWD Recycled Water by RCWD, pursuant to the Recycled Water Transfer Agreement, RCWD shall receive its transferred portion of Pechanga's allocation of EMWD Recycled Water, in accordance with the following protocol:

i. The Parties shall arrange for operational scheduling to provide for deliveries at the mutual convenience of the Parties, without interference with EMWD's scheduled deliveries of EMWD Recycled Water to Pechanga.

ii. EMWD shall deliver EMWD Recycled Water to RCWD at the Delivery Point. EMWD deliveries of EMWD Recycled Water to RCWD shall be metered at the Delivery Point using meters owned, operated and read by RCWD.

iii. EMWD shall invoice RCWD monthly at the same rate charged to Pechanga pursuant to the Recycled Water Agreement.

iv. RCWD shall pay EMWD's invoice directly to EMWD.

v. EMWD shall provide RCWD and Pechanga with an accounting of any reconciliation adjustments made in relation to the delivery of EMWD Recycled Water ordered by RCWD.

4. Effective Date. This Agreement shall be effective on the Enforceability Date.

5. **Termination.** In the event the Recycled Water Agreement is terminated for any reason, either in accordance with its terms or pursuant to an arbitration decision or court order, this Agreement shall automatically terminate fourteen (14) days after such termination of the Recycled Water Agreement without further action by either Party unless the Parties otherwise agree.

6. **Representations and Warranties.**

(a) **Representations and Warranties of Pechanga.** Pechanga represents and warrants to RCWD and EMWD as follows:

i. Pechanga's execution, delivery and performance of this Agreement have been duly authorized by all necessary action of Pechanga.

ii. Pechanga is not a party to any agreement, covenant or other agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

iii. This Agreement constitutes a legal, valid, and binding obligation of Pechanga enforceable against it in accordance with its terms.

iv. There is no pending or threatened action or proceeding against or affecting Pechanga before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of Pechanga or the ability of Pechanga to perform its obligation under this Agreement.

v. Except as set forth in Exhibit D-1, to the best of Pechanga's knowledge, the validity of this Agreement, the execution and delivery by it of this Agreement and the performance by it of its obligations hereunder will not require any permit, license, certificate, waiver, notice, approval, consent or similar authorization from any federal, state or local judiciary, regulatory or administrative body.

(b) **Representations and Warranties of RCWD.** RCWD represents and warrants to Pechanga and EMWD as follows:

i. Its execution, delivery and performance of this Agreement have been duly authorized by all necessary action of RCWD.

ii. RCWD is not a party to any agreement, covenant or other

agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

iii. This Agreement constitutes a legal, valid, and binding obligation of RCWD enforceable against it in accordance with its terms.

iv. There is no pending or threatened action or proceeding against or affecting RCWD before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of RCWD or the ability of RCWD to perform its obligation under this Agreement.

v. Except as set forth in Exhibit D-1, to the best of RCWD's knowledge, the validity of this Agreement, the execution and delivery by it of this Agreement and the performance by it of its obligations hereunder will not require any permit, license, certificate, waiver, notice, approval, consent or similar authorization from any federal, state or local judiciary, regulatory or administrative body.

(c) **Representations and Warranties of EMWD.** EMWD represents and warrants to Pechanga and RCWD as follows:

i. Its execution, delivery and performance of this Agreement have been duly authorized by all necessary action of EMWD.

ii. EMWD is not a party to any agreement, covenant or other agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

iii. This Agreement constitutes a legal, valid, and binding obligation of EMWD enforceable against it in accordance with its terms.

iv. There is no pending or threatened action or proceeding against or affecting EMWD before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of EMWD or the ability of EMWD to perform its obligation under this Agreement.

v. Except as set forth in Exhibit D-1, to the best of EMWD's knowledge, the validity of this Agreement, the execution and delivery by it of this Agreement and the performance by it of its obligations hereunder will not require any permit, license,

certificate, waiver, notice, approval, consent or similar authorization from any federal, state or local judiciary, regulatory or administrative body.

(d) **Breach of Representation or Warranty.** Any representation or warranty made by a Party in this Section 6 that shall prove to have been incorrect in any material respect as of the effective date of this Agreement shall be deemed to constitute a material breach of this Agreement by the Party giving such representation or warranty.

7. **Release.** Pechanga, RCWD and EMWD expressly recognize that scheduling, billing and payment provisions of this Agreement differ from those of the Recycled Water Agreement, and EMWD and RCWD agree to release and hold Pechanga, its officials, agents, and employees, harmless on account of damage or claim of damage of any nature arising out of, or connected with, this Agreement. All parties expressly recognize that after the effectiveness of this Agreement, and until such time as it terminates, Pechanga has no responsibility to provide water delivery schedules to EMWD, or to pay for such unused portion of Pechanga's allocation of EMWD Recycled Water transferred to RCWD.

8. **Notices.** All notices required to be given hereunder shall be in writing and may be given in person, by facsimile transmission, or by United States mail postage prepaid, and shall become effective at the earliest of actual receipt by the Party to whom notice is given, when delivered to the designated address of the Party, or if mailed, forty-eight (48) hours after deposit in the United States mail addressed as shown below or to such other address or addressee as such Party may from time to time designate in writing.

If to Pechanga:

Mark Macarro
Chairman
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

With a copy to:

General Counsel
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

and to:

Donald R. Pongrace

Akin Gump Strauss Hauer & Feld LLP
1333 New Hampshire Avenue, NW
Suite 400
Washington, DC 20036

If to RCWD:

General Manager
Rancho California Water District
42135 Winchester Road
Temecula, CA 92590

With a copy to:

James Gilpin
Best Best & Krieger LLP
655 West Broadway, 15th Floor
San Diego, CA 92101

If to EMWD:

Paul D. Jones II
General Manager
Eastern Municipal Water District
2270 Trumble Road
P.O. Box 8300
Perris, CA 92572-8300

9. Amendments; Waivers. No amendment, modification, waiver, replacement, termination or cancellation of any provision of this Agreement will be valid, unless the same is in writing and signed by the Parties. No waiver by a Party of any breach by the other Party of any of the terms or conditions of this Agreement, or of any right of such Party hereunder, shall be construed as a waiver of any subsequent breach by the other Party of the same or other terms or conditions, or of the future exercise by such Party of the same or any other right hereunder. Neither the failure nor any delay on the part of a Party to exercise any right or remedy under this Agreement will operate as a waiver thereof, nor does any single or partial exercise of any right or remedy preclude any other or subsequent exercise of the same or of any other right or remedy.

10. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of California, without regard to any choice of laws or conflicts of laws provisions which would direct the application of the laws of any other jurisdiction. The venue for arbitration proceedings shall be Riverside County, California.

11. Dispute Resolution.

(a) Pechanga is a sovereign Indian Nation, and as such it possesses sovereign immunity from suit. Nothing in this Agreement is or shall be deemed to be a waiver of Pechanga's sovereign immunity from suit, which immunity is expressly asserted, except that Pechanga agrees to waive its immunity for the limited and sole purposes of compelling arbitration by RCWD and EMWD and of enforcing arbitration of any decision rendered pursuant to the terms and conditions of this Agreement.

(b) Prior to pursuing any arbitration, each Party shall, whenever possible, attempt to resolve any grievances, complaints or disputes that are brought to its attention by the other Party. Each Party shall notify the other Party in writing of any material dissatisfaction with the other Party's performance at its address of record. Within ten (10) days of receipt of such notice, unless the problem has been resolved, the Parties shall meet and confer in good faith to determine what remedial action, if any, is necessary.

(c) In the event of any dispute between the Parties hereto arising under this Agreement, such dispute shall be submitted to mandatory binding arbitration, to be conducted in Riverside County, CA, pursuant to the Commercial Rules of the American Arbitration Association. Each Party shall initially pay its own arbitration costs and expenses, but the arbitrator may, in its discretion, include such costs and expenses, together with reasonable attorneys' fees, as part of the award to the prevailing party. Any award of the arbitrators may be submitted for enforcement to a court of competent jurisdiction located in Riverside County, CA.

(d) Judicial remedies are specifically limited to the enforcement of an award of money damages by arbitration pursuant to this Agreement; provided that the arbitrator(s) and/or court shall have no authority or jurisdiction to execute against any assets of Pechanga except to award the prevailing party the amounts paid or payable under this Agreement, costs of arbitration, court costs to enforce the arbitration decision and legal fees incurred during arbitration and any subsequent court proceedings to enforce the arbitration decision.

(e) Pechanga's limited waiver of its sovereign immunity as provided herein extends only to an arbitration, action to compel arbitration and action to confirm or enforce arbitration awards by RCWD and EMWD, and no other person or entity, for money damages in an amount not to exceed the amounts paid or payable under this Agreement, for Pechanga's breach of this Agreement.

12. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be considered an original but all of which, taken together, shall constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and dated as of the date first above written.

EASTERN MUNICIPAL WATER DISTRICT

By:_____
General Manager

Date: 11.29.17

Approved as to form:

By:_____
General Counsel

RANCHO CALIFORNIA WATER DISTRICT

By:_____
General Manager

Date: 11/29/17

Approved as to form:

By:_____
General Counsel

PECHANGA BAND OF LUISEÑO MISSION INDIANS

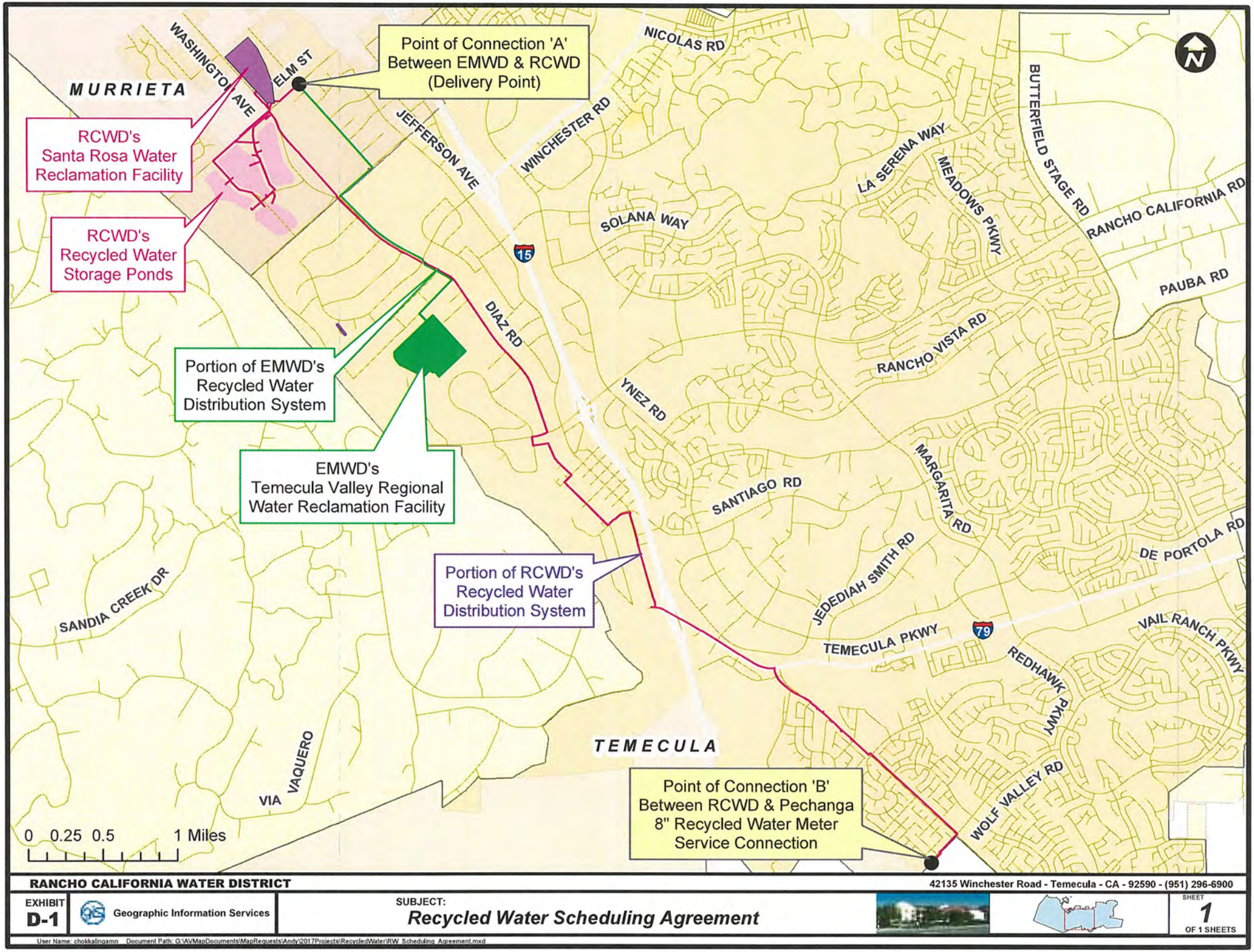
By:_____
Tribal Chairman

Date: 11/29/17

Approved as to form:

By:_____
General Counsel

Exhibit D-1



RANCHO CALIFORNIA WATER DISTRICT

42135 Winchester Road - Temecula - CA - 92590 - (951) 296-6900

EXHIBIT **D-1**

Geographic Information Services

SUBJECT:

Recycled Water Scheduling Agreement

SHEET **1** OF 1 SHEETS

User Name: chokkalingamn Document Path: G:\AVMapDocuments\MapRequests\Andy\2017Projects\RecycledWater\RW_Scheduling_Agreement.mxd

EXECUTION VERSION

RECYCLED WATER INFRASTRUCTURE AGREEMENT

THIS RECYCLED WATER INFRASTRUCTURE AGREEMENT (this "***Agreement***") is made and entered into as of November 29, 2017, by and among the **PECHANGA BAND OF LUISEÑO MISSION INDIANS** ("***Pechanga***"), a federally recognized Indian Tribe, **RANCHO CALIFORNIA WATER DISTRICT**, a California water district organized pursuant to California Water Code section 34000 *et seq.* ("***RCWD***") and the **UNITED STATES OF AMERICA** ("***United States***"), acting through the Secretary of the Department of the Interior.

RECITALS

A. RCWD and Pechanga have agreed to a comprehensive settlement of all of Pechanga's claims to water rights in the Santa Margarita River Watershed, which settlement is memorialized in the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Agreement ("***Settlement Agreement***").

B. As part of the Settlement Agreement, Pechanga and RCWD entered a Recycled Water Transfer Agreement, by which Pechanga agreed to transfer a portion of the EMWD Recycled Water Pechanga is entitled to receive to RCWD.

C. RCWD and EMWD entered a Recycled Water Scheduling Agreement, pursuant to which the Parties established a protocol for ordering and delivering the portion of Pechanga's allocation of EMWD Recycled Water that Pechanga agreed to transfer to RCWD pursuant to the Recycled Water Transfer Agreement.

D. In furtherance of the Settlement Agreement, Pechanga and RCWD seek to mutually benefit from the use of Recycled Water and, in furtherance of that effort, require development and construction of Recycled Water Infrastructure, as set forth in this Agreement.

E. The U.S. Congress has authorized, ratified and confirmed the Settlement Agreement by act of Congress, Subtitle D of Title III of Public Law No. 114-322 ("Act"). In the Act, Congress authorized, as a portion of the settlement to which Pechanga is entitled, funds to pay for Pechanga's agreed upon share of the Recycled Water Infrastructure.

F. The Parties hereto seek to agree upon the process pursuant to which Pechanga will provide to RCWD funds for the design and construction of the Recycled Water Infrastructure.

AGREEMENT

In consideration of the respective representations, warranties, covenants and agreements contained in this Agreement, and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, the Parties agree as follows:

1. Definitions. Capitalized terms used in this Agreement shall have the meanings set forth below.

"***Act***" means the Pechanga Band of Luiseño Mission Indians Water Settlement Act, Subtitle D of Title III of Public Law No. 114-322.

"***AFY***" means acre-feet per Year.

"***Agreement***" means this Recycled Water Infrastructure Agreement by and between the Pechanga, RCWD, and the United States dated as of the date first written above.

"***EMWD***" means Eastern Municipal Water District, a municipal water district organized and existing in accordance with the Municipal Water District Act of 1911, Division 20 of the Water Code of the State of California, as amended.

"***EMWD Recycled Water***" means water EMWD is to deliver to Pechanga pursuant to the EMWD Recycled Water Agreement.

"***Enforceability Date***" means the date on which the Secretary publishes in the Federal Register the statement of findings described in section 3407(e) of the Act.

"***Party***" means any entity represented by a signatory to this Agreement and "***Parties***" means more than one of such entities.

"***Pechanga***" means the Pechanga Band of Luiseño Mission Indians, a federally recognized sovereign Indian tribe that functions as a custom and tradition Indian tribe, acting on behalf of itself and its members (but not members in their capacities as Allottees).

"***Pechanga Settlement Fund***" means the fund established by section 3409 of the Act.

"***Pechanga Recycled Water Infrastructure Account***" means the account established by section 3409(c)(1) of the Act.

"***RCWD***" means the Rancho California Water District, a California water district organized pursuant to California Water Code section 34000 *et seq.*

"***Recycled Water Infrastructure***" means the Storage Pond.

"***Recycled Water Scheduling Agreement***" means the "Recycled Water Scheduling Agreement", between Pechanga, RCWD, and EMWD.

"***Recycled Water Transfer Agreement***" means the "Recycled Water Transfer Agreement", between Pechanga and RCWD.

"***Section***" means a section or subsection of this Agreement.

"***Settlement Agreement***" has the meaning set forth in Recital A.

"***Storage Pond***" means the Storage Pond No. 5 that RCWD designed and constructed in order to enable RCWD to utilize the EMWD Recycled Water to be delivered to RCWD pursuant to the Recycled Water Transfer Agreement.

"United States" means the United States or the United States of America acting in its capacity as trustee for Pechanga, its Members and Allottees.

"***Year***" means a calendar year of January through December.

2. Pechanga Recycled Water Infrastructure Account.

(a) Section 3409(c)(1) of the Act established the Pechanga Recycled Water Infrastructure Account as an account held in trust by the United States within the Pechanga Settlement Fund.

(b) Section 3411(a)(1) of the Act authorized appropriations to be made into the Pechanga Recycled Water Infrastructure Account in an amount equal to two million six hundred fifty-six thousand three hundred seventy-four dollars ($2,656,374).

(c) Section 3408(c)(2) of the Act established the purpose of the Pechanga Recycled Water Infrastructure Account to provide funds to allow Pechanga to pay for Pechanga's share of the costs associated with the design and construction of the Storage Pond in accordance with this Agreement.

(d) Funds deposited into the Pechanga Recycled Water Infrastructure Account for the purpose described in Section 2(c) above shall have interest accrue thereon for disbursement in accordance with the provisions of this Agreement.

3. **Effective Date.** This Agreement shall be effective on the Enforceability Date.

4. **Storage Pond.**

(a) Subject to Section 4(c), within fifteen (15) days after the Enforceability Date Pechanga shall file a written request to the Secretary that will allow for disbursement of funds from the Pechanga Recycled Water Infrastructure Account under Section 3411(a)(1) directly to RCWD in an amount equal to all funds in the Pechanga Recycled Water Infrastructure Account; and

(b) Pechanga shall have no obligation to pay for the Storage Pond if the Act and Settlement Agreement are not approved.

(c) If Pechanga withdraws the funds in the Pechanga Recycled Water Infrastructure Account pursuant to the Act, subject to the availability of funds in the Pechanga Recycled Water Infrastructure Account, Pechanga shall make payment directly to RCWD in an amount equal to all funds in the Pechanga Recycled Water Infrastructure Account.

5. **Notices.** All notices required to be given hereunder shall be in writing and may be given in person, by facsimile transmission, or by United States mail postage prepaid, and shall become effective at the earliest of actual receipt by the Party to whom notice is given, when delivered to the designated address of the Party, or if mailed, forty-eight (48) hours after deposit in the United States mail addressed as shown below or to such other address or addressee as such Party may from time to time designate in writing.

If to Pechanga:

Mark Macarro
Chairman
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

With a copy to:

General Counsel
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

and to:

Donald R. Pongrace
Akin Gump Strauss Hauer & Feld LLP
1333 New Hampshire Avenue, NW
Suite 400

Washington, DC 20036

If to the United States:

Assistant Secretary for Indian Affairs
U.S. Department of the Interior
1849 C St. NW, 4660 MIB
Washington, DC 20240-0001

And to:

Regional Director
Pacific Regional Office
Bureau of Indian Affairs
2800 Cottage Way
Sacramento, CA 95825

And to:

Chief, Indian Resources Section
Environment and Natural Resources Division
U.S. Department of Justice
601 D Street, NW
Washington, DC 20004

And to:

Associate Solicitor
Division of Water Resources
1849 C Street, NW MS 6413
Washington, DC 20240
If to RCWD:

General Manager
Rancho California Water District
42135 Winchester Road
Temecula, CA 92590

With a copy to:

James Gilpin
Best Best & Krieger LLP
655 West Broadway, 15th Floor
San Diego, CA 92101

6. **Termination.** In the event the Recycled Water Transfer Agreement is terminated for any

reason, either in accordance with its terms or pursuant to an arbitration decision or court order, this Agreement shall automatically terminate fourteen (14) days after such termination of the Recycled Water Transfer Agreement without further action by any Party unless the Parties otherwise agree.

7. Representations and Warranties.

(a) Representations and Warranties of Pechanga. Pechanga represents and warrants to RCWD as follows:

(i) Pechanga's execution, delivery and performance of this Agreement have been duly authorized by all necessary action of Pechanga.

(ii) Pechanga is not a party to any agreement, covenant or other agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

(iii) This Agreement constitutes a legal, valid, and binding obligation of Pechanga enforceable against it in accordance with its terms.

(iv) There is no pending or threatened action or proceeding against or affecting Pechanga before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of Pechanga or the ability of Pechanga to perform its obligation under this Agreement.

(v) To the best of Pechanga's knowledge, the validity of this Agreement, the execution and delivery by it of this Agreement and the performance by it of its obligations hereunder will not require any permit, license, certificate, waiver, notice, approval, consent or similar authorization from any federal, state or local judiciary, regulatory or administrative body.

(b) Representations and Warranties of RCWD. RCWD represents and warrants to Pechanga as follows:

(i) RCWD's execution, delivery and performance of this Agreement have been duly authorized by all necessary action of RCWD.

(ii) RCWD is not a party to any agreement, covenant or other agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

(iii) This Agreement constitutes a legal, valid, and binding obligation of RCWD enforceable against it in accordance with its terms.

(iv) There is no pending or threatened action or proceeding against or affecting RCWD before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of RCWD or the ability of RCWD to perform its obligation under this Agreement.

(v) To the best of RCWD's knowledge, the validity of this Agreement, the execution and delivery by it of this Agreement and the performance by it of its obligations hereunder will not require any permit, license, certificate, waiver, notice, approval, consent or similar authorization from any federal, state or local judiciary, regulatory or administrative body.

8. Breach of Representation or Warranty. Any representation or warranty made by a Party in Section 7 that shall prove to have been incorrect in any material respect as of the effective date of this Agreement shall be deemed to constitute a material breach of this Agreement by the Party giving such representation or warranty.

9. Amendments; Waivers. No amendment, modification, waiver, replacement, termination or cancellation of any provision of this Agreement will be valid, unless the same is in writing and signed by the Parties. No waiver by a Party of any breach by the other Party of any of the terms or conditions of this Agreement, or of any right of such Party hereunder, shall be construed as a waiver of any subsequent breach by the other Party of the same or other terms or conditions, or of the future exercise by such Party of the same or any other right hereunder. Neither the failure nor any delay on the part of a Party to exercise any right or remedy under this Agreement will operate as a waiver thereof, nor does any single or partial exercise of any right or remedy preclude any other or subsequent exercise of the same or of any other right or remedy.

10. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of California and the United States, as applicable, without regard to any choice of laws or conflicts of laws provisions which would direct the application of the laws of any other jurisdiction. The venue for arbitration proceedings shall be Riverside County, California.

11. Dispute Resolution.

(a) Pechanga is a sovereign Indian Nation, and as such it possesses sovereign immunity from suit. Nothing in this Agreement is or shall be deemed to be a waiver of Pechanga's sovereign immunity from suit, which immunity is expressly asserted, except that Pechanga agrees to waive its immunity for the limited and sole purposes of compelling arbitration by RCWD and of enforcing arbitration of any decision rendered pursuant to the terms and conditions of this Agreement.

(b) With respect to any dispute arising under this Agreement, prior to pursuing dispute resolution pursuant to either Section 11(c) or 11(f), each Party shall, whenever possible, attempt to resolve any grievances, complaints or disputes that are brought to its attention by another Party. Any Party with a grievance or complaint arising under this Agreement shall notify the other Parties in writing of its grievance or complaint at the other Parties' respective address of record.

Within ten (10) days of receipt of such notice, unless the problem has been resolved, the Parties shall meet and confer in good faith to determine what remedial action, if any, is necessary.

(c) In the event of any dispute between RCWD and Pechanga arising under this Agreement, such dispute shall be submitted to mandatory binding arbitration, to be conducted in Riverside County, CA, pursuant to the Commercial Rules of the American Arbitration Association. RCWD and Pechanga shall each initially pay its own arbitration costs and expenses, but the arbitrator may, in its discretion, include such costs and expenses, together with reasonable attorneys' fees, as part of the award to the prevailing party. Any award of the arbitrators may be submitted for enforcement to a court of competent jurisdiction located in Riverside County, CA.

(d) Judicial remedies are specifically limited to the enforcement of an award of money damages by arbitration pursuant to this Agreement; provided that the arbitrator(s) and/or court shall have no authority or jurisdiction to execute against any assets of Pechanga except to award the prevailing party the amounts paid or payable under this Agreement, costs of arbitration, court costs to enforce the arbitration decision and legal fees incurred during arbitration and any subsequent court proceedings to enforce the arbitration decision.

(e) Pechanga's limited waiver of its sovereign immunity as provided herein extends only to an arbitration, action to compel arbitration and action to confirm or enforce arbitration awards by RCWD and no other person or entity, for money damages in an amount not to exceed the amounts paid or payable under this Agreement, for Pechanga's breach of this Agreement.

(f) In the event of any dispute between the United States and RCWD or Pechanga arising under this Agreement, a Party shall have the right to petition the Adjudication Court for such relief as may be appropriate to enforce the terms, conditions, and limitations as provided in this Agreement. The United States acknowledges and agrees that the Adjudication Court has jurisdiction to hear such disputes between the Parties arising under this Agreement.

12. **Counterparts**. This Agreement may be executed in one or more counterparts, each of which shall be considered an original but all of which, taken together, shall constitute one and the same instrument.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and dated as of the date first above written.

PECHANGA BAND OF LUISEÑO MISSION INDIANS

By:_____
Tribal Chairman

Date: 11/29/17

Approved as to form: By:_____
General Counsel

RANCHO CALIFORNIA WATER DISTRICT

By:_____
General Manager

Date: 11/29/17

Approved as to form: By:_____
General Counsel

THE UNITED STATES OF AMERICA

By:_____
Secretary of the Interior

Dated: 29 Nov 17

EXTENSION OF SERVICE AREA AGREEMENT

This "Extension of Service Area Agreement" (this "***Agreement***") is made and entered into on October 11, 2017 (the "***Effective Date***"), by and among the **PECHANGA BAND OF LUISEÑO MISSION INDIANS** ("***Pechanga***"), a federally recognized Indian tribe, **EASTERN MUNICIPAL WATER DISTRICT** ("***EMWD***"), a municipal water district organized and existing in accordance with the Municipal Water District Act of 1911, Division 20 of the Water Code of the State of California, as amended, and **THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**, a metropolitan water district organized and incorporated under the Metropolitan Water District Act of the State of California (Stats. 1969, Chapter 209, as amended) ("***Metropolitan***"). The foregoing signatories to this Agreement are referred to hereafter individually as "***Party***" or collectively as "***Parties***."

PREAMBLES

A. Metropolitan was organized and exists for the purpose of providing a supplemental supply of imported water to the 26 public agencies that make up its service area in southern California. These member agencies include EMWD.

B. Metropolitan is generally limited by law to providing supplemental water supplies to its member agencies for domestic and municipal uses. Pursuant to Metropolitan's Administrative Code Sections 4200 and 4509, Metropolitan's supplemental water supplies may not be sold or delivered outside of its district boundaries without the approval of its board of directors.

C. EMWD was organized and exists for the purpose of providing water service to its service area located in Riverside County, California. As a member agency of Metropolitan, EMWD's service area is wholly included within Metropolitan's district boundaries.

D. The Pechanga is a federally recognized Indian tribe that functions as a custom and tradition Indian tribe, acting on behalf of itself and its members but not members in their capacities as Allottees. The Pechanga Reservation ("***Reservation***") includes the lands held in trust for the Pechanga by the United States, as shown on Exhibit F-6.

E. By Certificate of Completion issued by the Local Agency Formation Commission of Riverside County, California, the boundaries of Metropolitan and EMWD were reorganized to incorporate within Metropolitan's and EMWD's service area those areas of land depicted on the map attached hereto as Exhibit F-1 and identified as the "***Existing Area***". The Existing Area was annexed to Metropolitan and EMWD in two parts: the area to the north recorded on April 25, 1983 (designated LAFCO #82-16-3) and the area to the west recorded on July 19, 1967 (designated LAFCO #67-26-5). The Existing Area became a part of the Reservation in April of 2003.

F. As part of a comprehensive settlement of its claims for water rights in the Santa Margarita River Watershed, Pechanga has requested that Metropolitan's and EMWD's service area be extended to include certain additional Reservation acreage (the "***Extended Area***", as more particularly depicted and described in Exhibit F-2). The combined

Existing Area and Extended Area are referred to in this Agreement as the "***Consolidated Area***", which is more particularly depicted and described in Exhibit F-3. Metropolitan and EMWD have agreed to provide treated water service to the Consolidated Area in accordance with the terms and conditions specified in this Agreement. Rancho California Water District ("RCWD") has agreed to deliver such treated water to Pechanga pursuant to the terms and conditions of a separate agreement executed by EMWD, Pechanga and RCWD which establishes delivery, billing and operational protocols ("ESAA Water Delivery Agreement").

G. Metropolitan and EMWD recognize and respect the inherent sovereignty of Pechanga as a tribal government and by this Agreement to provide water service to the Consolidated Area acknowledge that they do not exercise any governmental or regulatory control over the Reservation. The terms and conditions of this Agreement establish the contractual basis for the service of water for use in the Consolidated Area of the Reservation only, and do not affect the sovereign authority of Pechanga over the Reservation. Water served pursuant to this Agreement is not deemed extraterritorial service by virtue of these circumstances and this Agreement.

H. Pechanga acknowledges and agrees by this Agreement that Metropolitan and EMWD are public agencies created under and bound by the laws of the State of California. The terms and conditions of this Agreement establish the contractual basis for the service of water for use in the Consolidated Area of the Reservation only, and Pechanga acknowledges that its execution of this Agreement includes the contractual condition that the use of water provided by EMWD, including water imported by Metropolitan for EMWD, shall be pursuant to the same terms, conditions, and obligations as are applicable to all other customers of EMWD and Metropolitan and that the status of Pechanga as a sovereign tribal government does not relieve or absolve Pechanga from contractual compliance with such terms, conditions and obligations on the same basis as all other customers of EMWD and Metropolitan. Pechanga further acknowledges that the provisions of this Agreement are the conditions pursuant to which the legislative bodies governing EMWD and Metropolitan have granted consent to the extension of their service areas to include the Extended Area.

I. Pechanga expressly agrees that water delivered to Pechanga by EMWD includes water imported by Metropolitan, and such water cannot be used, directly or indirectly, in any manner which intentionally or avoidably results in the benefit of areas outside of the Consolidated Area. This prohibition applies both to the direct use of such water outside of the Consolidated Area and the indirect use by substitution of the water supplies made available under this Agreement and the ESAA Water Delivery Agreement to Pechanga for water supplies that Pechanga would otherwise use in the Consolidated Area, for example, Pechanga could not sell its Tribal Water Right off the Reservation and use Imported Water in its place. The Parties acknowledge that Pechanga may use its Tribal Water Right pumped from the Consolidated Area in other areas of the Reservation and that the provision of Imported Water may provide a benefit to areas outside of the Consolidated Area; the Parties agree that this benefit shall not constitute a violation of this Agreement or the MWD Administrative Code.

J. The Parties acknowledge the comprehensive settlement of Pechanga's claims for water rights in the Santa Margarita River Watershed will be effected through federal legislation known as "Pechanga Band of Luiseño Mission Indians Water Rights Settlement Act" (Subtitle D of Title III of Public Law No. 114-322) (hereinafter the "Settlement Act"), and further acknowledge such legislation limits use of the Tribal Water Rights, as defined in the Act and herein, to use on the Reservation.

K. The Parties agree that this Preamble is a substantive and enforceable part of this Agreement and desire in this Agreement to provide for extension of water service to the Consolidated Area and to set forth terms and conditions that will govern such service in accordance with this Preamble.

NOW, THEREFORE, it is agreed as follows:

AGREEMENT

1. Construction.

1.1 Definitions. Capitalized terms used in this Agreement shall have the meanings respectively ascribed thereto below or as set forth elsewhere in this Agreement.

"***AF***" means acre-feet.

"***AFY***" means acre-feet per Year.

"***Agreement***" means this Extension of Service Area Agreement, including all Appendices, as the same may be amended from time to time.

"***Consolidated Area***" means the area of land on the Reservation that includes both the Existing Area and the Extended Area, and is identified as the Consolidated Area and depicted in the map attached hereto as Exhibit F-3.

"***Delivery Commencement Date***" shall be the date on which deliveries of water to the Consolidated Area under this Agreement and the ESAA Water Delivery Agreement shall commence, as such date is established pursuant to Section 2.2.

"***Dispute***" is defined in Section 8.1.

"***Effective Date***" is defined in the first paragraph of this Agreement.

"***EMWD***" is defined in the first paragraph of this Agreement.

"***EMWD Connection Fee***" has the meaning set forth in Section 2.3.1(b) of this Agreement.

"***EMWD Water Shortage Contingency Plan***" means the plan approved by EMWD's Board of Directors in Ordinance No. 117.2, effective April 1, 2009, as amended from time to time, or any other plan or method that EMWD's Board of Directors adopts in the future to allocate water supply in substitution of the foregoing.

"***Exhibit***" means an Exhibit to this Agreement, each of which is incorporated herein by this reference.

"***Existing Area***" means the area of land on the Reservation identified as the Existing Service Area and depicted in the map attached hereto as Exhibit F-1.

"***Extended Area***" means the additional area of land on the Reservation to be incorporated into the EMWD service area pursuant to this Agreement, and identified as the Extended Service Area and depicted in the map attached hereto as Exhibit F-2.

"***Fallbrook Adjudication Court***" means the United States District Court for the Southern District of California, which exercises continuing jurisdiction over the Fallbrook Adjudication Proceeding.

"***Fallbrook Adjudication Proceeding***" means litigation initiated by the United States regarding relative water rights in the Santa Margarita River Watershed in *United States v. Fallbrook Public Utility District et al.*, Civ. No. 3:51–cv–01247 (S.D.C.A.), including any litigation initiated to interpret or enforce the relative water rights in the Santa Margarita River Watershed pursuant to the continuing jurisdiction of the Fallbrook Adjudication Court over the Fallbrook Decree.

"***Fallbrook Decree***" means the "Modified Final Judgment And Decree", entered in the Fallbrook Adjudication Proceeding on April 6, 1966 and includes all court orders, interlocutory judgments, and decisions supplemental to the "Modified Final Judgment And Decree", including Interlocutory Judgment No. 30, Interlocutory Judgment No. 35, and Interlocutory Judgment No. 41.

"***Holiday***" includes January 1, the third Monday in January (observance of Martin Luther King Jr.'s birthday), the third Monday in February, (Presidents' Day), March 31 (observance of Cesar Chavez's Birthday), the Friday before Easter, the last Monday in May (Memorial Day), July 4, the first Monday in September (Labor Day), November 11 (Veterans Day), Thanksgiving Day, the day following Thanksgiving Day, December 24, December 25, December 31, and any day or portion of a day declared by MWD's Board of Directors as a Holiday. If any Holiday other than December 24 and 31 falls on Sunday, the following Monday is a Holiday. If any Holiday falls on Saturday, the preceding Friday is a Holiday.

"***Imported Water***" means any water delivered to Pechanga pursuant to this Agreement and the ESAA Water Delivery Agreement.

"***Initial Delivery Point***" means the delivery point indicated on the map attached in Exhibit F-5.

"***Month***" means a calendar month, unless otherwise provided.

"***Metropolitan***" is defined in the first paragraph of this Agreement.

"***MWD Administrative Code***" means the code adopted by Metropolitan's Board of Directors on January 11, 1977, as amended from time to time.

"***MWD Connection Fee***" has the meaning set forth in Section 2.3.1(a) of this Agreement.

"***Party***" means any entity represented by a signatory to this Agreement and "***Parties***" means more than one of such entities.

"***Pechanga***" means the Pechanga Band of Luiseño Mission Indians, a federally recognized sovereign Indian tribe that functions as a custom and tradition Indian tribe, acting on behalf of itself and its members (but not members in their capacities as Allottees).

"***Reservation***"" means the reservation of the Pechanga Band of Luiseño Mission Indians, as delineated in Exhibit F-6.

"***Section***" means a section or subsection of this Agreement.

"***Tribal Water Right***" means the water established and confirmed by section 3405 of the federal legislation known as "Pechanga Band of Luiseño Mission Indians Water Rights Settlement Act" (Subtitle D of Title III of Public Law No. 114-322).

"***Year***" means a calendar year of January through December.

1.2.1 The words "include," "includes," and "including" will be deemed to be followed by "without limitation." The words "this Agreement," "herein," "hereof," "hereby," "hereunder," and words of similar import refer to this Agreement as a whole and not to any particular subdivision unless expressly so limited.

1.2.2 The Section headings contained in this Agreement are inserted for convenience only and shall not affect in any way, and shall not be considered in, the meaning or interpretation of this Agreement.

1.2.3 Under no circumstances shall this Agreement be construed as a conveyance, abandonment, or waiver of any water right or right to the use of water from the Colorado River or the California State Water Project which is held and owned by Metropolitan.

1.2 Exhibits. The following Exhibits are included in this Agreement:

Exhibit F-1: Existing Area

Exhibit F-2: Extended Area

Exhibit F-3: Consolidated Area

Exhibit F-4: Required Approvals

Exhibit F-5: Initial Delivery Point

Exhibit F-6: Map of Reservation

Exhibit F-7: MWD's Best Management Practices

2. Water Service.

2.1 Nature of Service.

2.1.1 Subject to the terms, conditions, and obligations of this Agreement, and the ESAA Water Delivery Agreement, Metropolitan and EMWD shall provide treated water service to the Consolidated Area to the same extent and under the same terms and conditions as all other Metropolitan customers. Pechanga acknowledges and agrees that this water service provides the Consolidated Area with imported supplemental water supplies delivered by Metropolitan to EMWD for use within the service areas of Metropolitan and EMWD.

2.1.2 Pechanga acknowledges and agrees that the terms, conditions and obligations of this Agreement are the same as would be applicable to other customers of EMWD

and Metropolitan and that this Agreement binds Pechanga to such terms, conditions and obligations.

2.1.3 For any period during which EMWD has implemented the EMWD Water Shortage Contingency Plan, sales and provision of water to Pechanga hereunder shall be limited to an amount equal to a percentage of the average amount of water used from all sources on the Consolidated Area in the previous three calendar years, such percentage to be equal to the percentage of water which Rancho California Water District would receive under EMWD's Water Shortage Contingency Plan, Wholesale Supply Allocation, as defined in EMWD's Administrative Code and as amended from time to time, during the water supply allocation period as reported by EMWD.

2.2 Delivery Commencement Date. The Delivery Commencement Date shall be such date as may be specified in a written notice from Pechanga to EMWD given thirty (30) days prior to such date; provided, however, that such date shall be no earlier than the date on which all of the following have occurred:

(a) all approvals specified in Exhibit F-4 have been obtained and are in full force and effect;

(b) water is operationally available and capable of being delivered to and received at the Delivery Point; and

(c) Pechanga shall have paid the EMWD Connection Fee and Metropolitan Connection Fee required pursuant to Section 2.3.1(a) and (b), below.

2.3 Fees, Costs, and Water Service Rates.

2.3.1 Connection Fees and Processing Costs.

(a) Pechanga shall pay to Metropolitan the Metropolitan Connection Fee for the extension of Metropolitan's service area that is calculated in the same manner, and paid in lieu of, an annexation fee. This fee shall equal the sum of the net present value of the amount equivalent to ad valorem taxes and the processing fee established by Metropolitan Administrative Code section 3100(b)(7) and an amount equal to the annexation charge that would be due on the total acreage of the Extended Area using the per-acre charge formula set forth in Metropolitan Administrative Code sections 3300 and 4301. As of January 1, 2017, the fee is estimated to be $3,094,457. The full amount of the fee will be calculated by Metropolitan upon written notice from Pechanga that all other conditions except payment of the connection fees have been satisfied. Metropolitan will provide Pechanga with a written invoice setting forth the amount of the fee and the calculations made in determining the fee. Pechanga shall pay the Metropolitan Connection Fee in full to satisfy the condition to the Delivery Commencement Date set forth in Section 2.2(c), above.

(b) Pechanga shall pay to EMWD the EMWD Connection Fee for the extension of the EMWD service area that is calculated in the same manner, and paid in lieu of, an annexation fee. This fee shall be based upon the total acreage of the Extended Area and computed on the basis of EMWD's present value of the property-related fees, including standby

charges, which would otherwise have been collected if the total acreage were subject to property assessments, which as of January 1, 2017 is estimated to be $ 63,072.11. The full amount of the fee will be calculated by EMWD upon written notice from Pechanga that all conditions except payment of the connection fees have been satisfied. EMWD will provide Pechanga with a written invoice setting forth the amount of the fee and the calculations made in determining the fee. Pechanga shall pay the EMWD Connection Fee in full to satisfy the condition to the Delivery Commencement Date set forth in Section 2.2(c), above.

(c) Except as specified in paragraphs (a) and (b) above, EMWD and Metropolitan shall not charge Pechanga any processing fees, property-related assessments, or other property-related charges that would normally be imposed for the annexation of land, in connection with the procedures for obtaining approvals required for execution and implementation of this Agreement and the extension of the EMWD and Metropolitan service areas and, to the extent required, EMWD and Metropolitan hereby expressly waive all such property-related fees, assessments, and charges.

2.3.2 Property Taxes and Assessments. The parties agree and acknowledge that property owners within the joint service areas of EMWD and Metropolitan are responsible to pay ad valorem property taxes and other charges imposed by EMWD and Metropolitan and collected by the Riverside County Assessor through property tax bills. In recognition of the sovereignty of Pechanga and except as provided in Section 2.3.1, no ad valorem property taxes or property-related assessments shall be imposed or collected by EMWD or Metropolitan on the Consolidated Area of the Reservation.

2.3.3 EMWD Payments to Metropolitan. EMWD shall pay Metropolitan for all water purchased from Metropolitan that is delivered to Pechanga at the applicable rates charged by Metropolitan. Payments due from EMWD to Metropolitan shall be made in accordance with the MWD Administrative Code.

3. Other Terms and Conditions of Service.

3.1 Metropolitan's and EMWD's Administrative Codes and All Other Laws Applicable to Metropolitan's and EMWD's Provision of Water. Pechanga acknowledges and agrees that the delivery of Imported Water necessarily includes the provision of Metropolitan's imported supplemental water. The use of Imported Water in the Consolidated Area shall be on the same terms, conditions, and obligations as are applicable to all other customers of Metropolitan and EMWD as set forth in the MWD and EMWD Administrative Codes as amended from time to time. Pechanga acknowledges that Metropolitan and EMWD are government entities organized and existing under the laws of the State of California, and that the powers and duties of Metropolitan and EMWD to provide water delivery under this agreement are subject to all state and federal laws that apply to Metropolitan's or EMWD's provision of water, including, but not limited to the California Water Code and executive orders issued by the Governor of the State of California. Pechanga agrees that its rights and obligations as a recipient of water provided by Metropolitan and EMWD pursuant to the terms and conditions of this agreement are subject to the terms and conditions of any state or federal laws that apply to Metropolitan's or EMWD's provision of water to the same extent as all other Metropolitan and EMWD customers. Consistent with the acknowledgements in Preambles I and J, Section 3.9,

and in addition to the restriction set forth in section 3405(b)(2) of the Settlement Act, Pechanga acknowledges that sections 3104, 4200, and 4509 of the MWD Administrative Code restrict the use of Metropolitan's imported water supplies solely for purposes lying within the service area of Metropolitan and its member agencies, and that pursuant to this Agreement, Pechanga agrees that these provisions apply contractually to the provision of Imported Water to the Consolidated Area.

3.2 Initial Delivery Point. The Initial Delivery Point means the delivery point for water provided by EMWD to Pechanga under this Agreement and shall be as depicted in Exhibit F-5. Pechanga may modify the Initial Delivery Point at any time upon written notice to EMWD, provided such modified delivery point is capable of taking deliveries of water.

3.3 Interruptions. Whenever repairs or maintenance of Metropolitan's or EMWD's system, in the opinion of the General Manager of Metropolitan or EMWD, respectively, shall require suspension of provision of water at any Delivery Point, such provision may be suspended without liability on the part of Metropolitan or EMWD. In addition to shutdowns, water may from time to time be unavailable, or available only in limited quantities at a service connection because of reductions or eliminations in flow. Reasons for shutdowns may change from time to time. Metropolitan and EMWD shall exercise reasonable efforts to provide advance notice to Pechanga of any interruption that is not an emergency.

3.4 Hydraulic Transients.

3.4.1 General. Pechanga shall avoid the creation of conditions that could cause hydraulic transients to damage Metropolitan's or EMWD's facilities.

3.4.2 Reduction or Suspension of Deliveries. Metropolitan's or EMWD's General Manager may reduce or suspend provision of water to Pechanga if he determines that Pechanga has failed to install reliable protective devices to protect Metropolitan's and EMWD's facilities from damage from hydraulic transients and that a substantial risk of such damage exists.

3.5 Facilities.

3.5.1 Pechanga Responsibilities. Pechanga shall be responsible, at its cost, for the design, installation and construction of any facilities on its side of the Initial Delivery Point, or any subsequently noticed delivery point, required to receive water provided by EMWD. Pechanga shall provide EMWD and Metropolitan with reasonable opportunity to review and comment on any such designs and shall incorporate any EMWD and Metropolitan comments reasonably required to ensure that such facilities may be operated without damage to EMWD's or Metropolitan's system.

3.5.2 EMWD and Metropolitan Responsibilities. EMWD and Metropolitan shall operate and maintain facilities for provision of water to Pechanga in accordance with applicable standards. EMWD and Metropolitan shall have no obligation (a) to provide additional works or facilities, necessary for the sale and provision of water from works owned and operated by EMWD or Metropolitan, or (b) to construct or furnish water treatment facilities to maintain or better the quality of water provided through EMWD's or Metropolitan's service connection.

3.6 Suspension of Deliveries. As stated in the MWD Administrative Code, section 4503, Suspension of Deliveries, as amended from time to time, Pechanga agrees that it shall have sufficient resources such as local reservoir storage, groundwater production capacity, system interconnections, or alternate supply source to sustain a seven-day interruption in provision of Metropolitan water based on annual average demands. Pechanga shall be responsible for and reimburse direct costs, excluding labor costs, incurred by Metropolitan in the event that a scheduled non-emergency interruption of up to seven days is postponed or cancelled at the request of EMWD on behalf of Pechanga as a result of insufficient local resources; provided that Metropolitan shall have sole discretion over whether to agree to any such request for a postponement or cancellation of a scheduled non-emergency interruption of service.

3.7 Environmental Documentation; Permits and Consents; Compliance.

3.7.1 Pechanga shall be responsible for the cost of the preparation of any documentation, defense of any legal challenge related to Metropolitan's or EMWD's compliance with the National Environmental Policy Act ("NEPA") and/or the California Environmental Quality Act ("CEQA") and other applicable state laws or any other challenge to the transaction contemplated by this Agreement. EMWD will serve as Lead Agency for any CEQA documents and analysis. Any costs incurred by Metropolitan or EMWD, using such attorneys and experts as in their sole discretion they determine to be reasonably necessary, in defense of the transaction shall be reimbursed by Pechanga.

3.7.2 Pechanga shall be responsible for obtaining and maintaining in effect all applicable permits, consents and licenses that may be required to be obtained and maintained exclusively by Pechanga to enable Pechanga to purchase and receive water as contemplated by this Agreement.

3.7.3 Except as provided in Preambles I and J and Section 3.1, nothing in this provision is intended to imply or be interpreted that Pechanga is subject to any water or air pollution laws and regulations of the State of California, or that Pechanga has waived any argument it may have with respect to the same.

3.8 Allocation of Liability.

3.8.1 Metropolitan, EMWD, and their officers, agents, and employees shall not be liable to Pechanga or any third party that makes use of water provided pursuant to this Agreement for the provision of water, including the quality of water provided, or failure to supply water, nor for the control, carriage, handling, use, disposal, or distribution of, or any limitations to the use, disposal or distribution of such water by any regulatory body or other third party on water sold to Pechanga after such water has been received by or on behalf of Pechanga at the Initial Delivery Point.

Metropolitan and EMWD, its officers, agents and employees shall also not be liable for any claim of damage of any nature whatsoever (including but not limited to property damage, personal injury, or death) arising out of or connected with the provision of water, including the quality of water provided, or failure to supply water, nor for the control, carriage, handling, use, disposal, or distribution of or any limitations to the use, disposal or distribution of

such water that may be imposed by any regulatory body or other third party on water sold to Pechanga under this Agreement after such water has been received by Pechanga at the Initial Delivery Point.

Pechanga shall, and hereby do, indemnify, defend and hold harmless Metropolitan and EMWD and their officers, agents, and employees from any and all such liability, damages, or claims of damages and shall reimburse Metropolitan or EMWD for costs of repair of Metropolitan's or EMWD's facilities and other damages resulting from the operations of Pechanga.

3.8.2 Pechanga and its officers, agents, employees and members shall not be liable to Metropolitan or EMWD, for any claim of damage of any nature whatsoever (including property damage, personal injury, or death) arising out of or connected with the control, carriage, handling, use, disposal, or distribution of, water prior to such water being delivered to Pechanga at the Initial Delivery Point, excepting, however, claims by Metropolitan or EMWD for costs of repair to Metropolitan's or EMWD's facilities and other damages resulting from the operations of Pechanga.

3.9 Restrictions on Re-sale and Use.

3.9.1 Consistent with the acknowledgements in Preambles I and J, subject to Section 3.1, and in addition to the restriction set forth in section 3405(b)(2) of the Settlement Act, Pechanga expressly agrees that water delivered to Pechanga by EMWD includes water imported by Metropolitan, and such water cannot be used, directly or indirectly, in any manner which intentionally or avoidably results in the benefit of areas outside of the Consolidated Area. This prohibition applies both to the direct use of such water outside of the Consolidated Area and the indirect use by substitution of the water supplies made available under this Agreement and the ESAA Water Delivery Agreement to Pechanga for water supplies that Pechanga would otherwise use in the Consolidated Area, for example, Pechanga could not sell its Tribal Water Right off the Reservation and use Imported Water in its place. The Parties acknowledge that Pechanga may use its Tribal Water Right pumped from the Consolidated Area in other areas of the Reservation and that the provision of Imported Water may provide a benefit to areas outside of the Consolidated Area; the Parties agree that this benefit shall not constitute a violation of this Agreement or the MWD Administrative Code.

3.9.2 Imported Water sold and provided to Pechanga shall not be used for agricultural purposes. Agricultural purposes are the growing or raising, in conformity with recognized practices of husbandry, for the purposes of commerce, trade, or industry, or for use by public educational or correctional institutions, of agricultural, horticultural, or floricultural products, and produced (a) for human consumption or for the market, or (b) for the feeding of fowl or livestock produced for human consumption or for the market, or (c) for the feeding of fowl or livestock for the purpose of obtaining their products for human consumption or for the market, such products to be grown or raised on a parcel of land having an area of not less than one acre utilized exclusively therefore.

3.9.3 Notwithstanding any other provision of this Agreement, Pechanga shall have the right to use the Tribal Water Right for any beneficial purpose at any location on the Reservation.

3.10 Service Conditions Related to Pechanga Sovereignty. It is understood that while intended to be analogous to water service provided by Metropolitan and EMWD to other similarly situated customers located within the boundaries of their service areas, water service to be provided under this Agreement shall at all times and in all respects be implemented in a manner that recognizes the sovereignty of Pechanga except as provided in Sections 3.1 and 8.1. Without limitation of the foregoing, it is agreed by EMWD and Metropolitan as follows:

3.10.1 Limitation of Effect. Nothing in this Agreement confers jurisdiction on any State court except as provided in Section 8.1. The Parties explicitly acknowledge and agree that the enforcement of such terms, conditions and obligations of this Agreement shall be solely pursuant to the dispute resolution provisions of this Agreement in Section 8.1 and not through any other mechanism.

3.10.2 No Entry Without Notice. Except for entry upon rights-of-way for their facilities or in the event of an emergency, no employee acting in the course and scope of their employment or agent acting on behalf of Metropolitan or EMWD shall enter onto the Reservation for any purpose without written permission from Pechanga authorizing such entry. In seeking such written permission, Metropolitan or EMWD shall provide Pechanga with at least forty-eight (48) hours written notice of their request to enter the Reservation, such notice to specifically indicate the purpose of the requested entry and the names of the individuals for whom permission to enter is sought. In the event of an emergency, Metropolitan or EMWD will provide as much notice as feasible. Any individual for whom permission to enter the Reservation is granted by Pechanga shall be accompanied in such entry by a designated individual representing Pechanga.

3.11 EMWD Preferential Rights. For purposes of calculating EMWD's preferential right to purchase water pursuant to section 135 of the Metropolitan Water District Act (Stats. 1969, Ch. 209, as amended), EMWD's payments to Metropolitan in lieu of taxes and other assessments for the capital cost and operating expense of Metropolitan's works that would otherwise be payable on the Consolidated Area lands except for the sovereignty of the Pechanga shall be included. Nothing in this Agreement, affects Metropolitan's right to include any of its rate components, including but not limited to the Readiness-to-Serve Charge and Capacity Charge, in its preferential right calculation.

4. Term.

This Agreement shall become effective on the Effective Date when the last party signs and shall remain in effect until any party terminates it per Section 5 below or the area is deannexed or otherwise removed from Metropolitan and EMWD's service areas and the provision of water ceases. This Agreement may be terminated only in accordance with Section 5 or Section 9.3. Notwithstanding the foregoing, suspension of water provisions shall be available as a remedy for breach of this Agreement until the breach that caused the suspension has ceased.

5. Termination.

5.1 Written Agreement. This Agreement may be terminated at any time by written agreement signed by the Parties.

5.2 Pechanga Alternate Supply. This Agreement may be terminated upon thirty (30) days written notice given by Metropolitan or EMWD to Pechanga in the event that Pechanga: (a) enters into any arrangement with any party that would reduce the amount of Colorado River or State Water Project water available to Metropolitan, or (b) enters into an arrangement with another entity to receive water supplied directly or indirectly by Metropolitan to that entity, or (c) obtains by arrangement a supplemental supply of water for the Consolidated Area from another source, or (d) the Consolidated Area, or any portion thereof, shall be conveyed out of ownership of the United States in trust for Pechanga. In the event of such termination, the provisions of this Agreement governing the Parties' financial obligations and allocation of liability, as well as the general provisions, shall continue until the specified obligations have been fulfilled.

5.3 Settlement Act. This Agreement shall be automatically terminated in the event: (1) the waivers and releases of claims authorized by the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Act (Subtitle D of Title III of Public Law No. 114-322) expire pursuant to section 3407(g) of said Act; (2) Pechanga seeks congressional authorization for off-Reservation transfer or sale of water sold and provided by Metropolitan and EMWD to Pechanga pursuant to this Agreement and the ESAA Water Delivery Agreement; or (3) upon expiration of the Act pursuant to section 3412 of the Act.

5.4 Off-Reservation Uses. Except for uses allowed in Preambles I and J and Sections 3.1 and 3.9, Metropolitan or EMWD may terminate this Agreement in the event Pechanga sells, exchanges, or uses Imported Water outside the Consolidated Area or its Tribal Water Right outside the Reservation.

6. Record-Keeping. Each Party shall maintain and, upon reasonable advance notice, shall make available for inspection and audit by the other Parties during regular office hours, accurate records pertaining to the times and quantities of sales and provision of water under this Agreement.

7. Obligation to Work in Good Faith. Each Party shall have the obligation to work in good faith to satisfy the conditions of this Agreement and to attempt in good faith to informally resolve any disputes under this Agreement.

8. Disputes.

8.1 Dispute Resolution and Limited Waiver of Sovereign Immunity.

8.1.1 The Parties agree that in the event of a dispute, the parties shall make a good faith effort to meet in person to resolve any disputes arising under this Agreement. However, if the parties are unable to reach a mutually acceptable resolution, the Parties agree to submit the dispute to the United States District Court for the Southern District of California, or in the event the district court cannot accept jurisdiction, the Superior Court of California for

Riverside County. Pechanga hereby grants a limited waiver of sovereign immunity solely to Metropolitan and EMWD as follows:

i. Waiver is limited to proceedings brought for interpretation, violation or breach of this Agreement.

ii. Waiver shall commence as of the effective date of this Agreement and shall terminate upon the termination, cancellation, or completion of each party's obligations to perform pursuant to this Agreement.

iii. Waiver is granted solely and exclusively to Metropolitan and EMWD and not to any other individual or entity.

iv. Waiver is limited to actual damages and shall not include any punitive or exemplary damages.

v. Waiver is limited to the Pechanga Band of Luiseño Indians and does not waive the immunity of any other agency or instrumentality of the Tribe.

8.1.2 Counsel for Pechanga shall provide a written opinion that the waiver of sovereign immunity is effective and that this Agreement has been authorized and signed in a manner, which binds Pechanga to its terms.

8.1.3 Pechanga acknowledges that the waiver of sovereign immunity in this Section 8.1 is an essential term under this Agreement, without which EMWD and Metropolitan would not have entered into this Agreement. Pechanga agrees that this Agreement shall automatically terminate without action by any party in the event that a claim of sovereign immunity, or a claim based on non-compliance with the requirements of 25 U.S.C. § 81, is raised by Pechanga or the United States in connection with the resolution of any dispute, claim, arbitration, or litigation arising from, or brought in connection with, this Agreement or any action taken to implement this Agreement or with regard to the obligation of the Tribe, as set forth in this Agreement, to comply with the provisions of Metropolitan's or EMWD's Administrative Code as they exist at the time of execution of this Agreement or may be modified in the future.

8.1.4 The Parties shall seek a determination from the Secretary of the Interior that this Agreement is not covered by 25 U.S.C. § 81, pursuant to subsection (c) thereof. Pechanga acknowledges that the assumption that this Agreement is not covered by section 81 and thus enforceable without Secretarial approval is an essential term under this Agreement, without which EMWD and Metropolitan would not have entered into this Agreement. Pechanga agrees that this Agreement shall automatically terminate if it is determined that Secretarial approval is required and it is not obtained within 180 days of such a determination.

8.1.5 The Parties shall seek an order in the Fallbrook Adjudication, as part of the approval of the Pechanga Water Settlement Agreement, that would make interpretation and enforcement of this Agreement subject to the continuing jurisdiction of such court in the same manner as the Pechanga Water Settlement Agreement and any exhibits thereto.

8.2 Presentation of Claim. Prior to bringing any action for money damages against EMWD or Metropolitan, Pechanga shall present a claim in accordance with the California Government Claims Act (Cal. Govt. Code Section 810, *et seq.*).

8.3 Available Remedies. In addition to specific remedies provided in this Agreement, any legal or equitable remedies for breach of contract shall be available to the Parties to this Agreement, except that termination of the Agreement shall not be a remedy except as provided in Sections 5.2, 8.1.3, 8.1.4, and 9.3, and monetary damages shall be limited as a remedy for a breach as provided in Section 9.3. In the event a final monetary judgment for a breach of the Agreement is entered against Pechanga, no judgment lien shall be enforceable against any Reservation lands, but Imported Water provided pursuant to this Agreement may be suspended until the judgment is paid in full.

9. General Representations and Warranties; Covenants.

9.1 Representations and Warranties of the Parties.

Each Party represents and warrants to the other Parties as follows:

9.1.1 Its execution, delivery and performance of this Agreement have been duly authorized by all necessary action of such Party.

9.1.2 It is not a party to any agreement, covenant or other agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

9.1.3 This Agreement constitutes a legal, valid, and binding obligation of such Party enforceable against it in accordance with its terms.

9.1.4 There is no pending or threatened action or proceeding against or affecting such Party before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the ability of such Party to perform its obligations under this Agreement.

9.2 Covenants. Each Party represents and warrants to, and covenants with, each of the other Parties that it will undertake, implement, pursue and complete diligently and in good faith all actions required to cause the Delivery Commencement Date to occur, and will cooperate with each other Party to enable such other Party to comply with the foregoing covenant. Without limitation of the foregoing, each of EMWD and Metropolitan represents and warrants to, and covenants with, Pechanga that it will promptly undertake and diligently pursue all applications, procedures and processes that may be required to obtain third party approvals required to be obtained by it in order to implement this Agreement, including certification by the appropriate Local Agency Formation Commission of the boundaries of the Consolidated Area and registration thereof. In addition to the restriction set forth in section 3405(b)(2) of the Settlement Act, Pechanga covenants with EMWD and Metropolitan that Imported Water shall only be used on the Consolidated Area, and shall not be put to a use that directly or indirectly benefits areas outside the Consolidated Area and the Tribal Water Rights shall not be used outside the Reservation or used in any manner that directly or indirectly benefits areas outside the Reservation except as provided in Preambles I and J and Sections 3.1 and 3.9.

9.3 Breach of Representation, Warranty or Covenant. Any representation or warranty made by a Party in Section 9.1 that shall prove to have been incorrect in any material

respect as of the Effective Date, and any failure of a Party to perform in accordance with the covenants set forth in Section 9.2, shall constitute a material breach of this Agreement by the Party giving such representation, warranty or covenant and shall entitle any other Party to bring an action to terminate this Agreement or to have the Agreement declared void and unenforceable. No Party shall be entitled to recover monetary damages for making false representations or warranties set forth in Section 9.1 or breaching the covenants in Section 9.2.

10. Miscellaneous Provisions.

10.1 Release of Information. All press releases relating to this Agreement or the implementation of the transactions hereunder, and the method of the release for publication thereof, shall be subject to the prior approval of each of the Parties, which approval shall not be unreasonably withheld. Notwithstanding the foregoing, Pechanga acknowledges that EMWD and Metropolitan are California governmental agencies subject to the California Public Records Act (Cal. Gov't Code §§ 6250, et seq.), and are obligated to provide copies of public records upon appropriate request. It shall not be a breach of this Section for EMWD or Metropolitan to provide records pursuant to a request made in compliance with the California Public Records Act. Metropolitan and EMWD will provide written notice and an opportunity to Pechanga to respond to any request so made.

10.2 Assignment; Successors in Interest.

10.2.1 No Party may assign or transfer any of its rights or obligations under this Agreement without the express written consent of the other Parties.

10.2.2 This Agreement shall be binding upon and inure to the benefit of the Parties and their respective permitted assigns and successors in interest.

10.3 No Third-Party Rights. The Parties do not intend, and this Agreement shall not be construed to, bind, inure to the benefit of or confer rights upon or grant remedies to any person, firm, corporation, public or private entity, or other party not a Party to this Agreement.

10.4 Notice. All notices, requests, reports and other communications provided for or permitted to be given or made by a Party under this Agreement must be in writing signed by such Party's duly authorized representative, and must be given by personal delivery, or by certified or registered United States mail (postage prepaid, return receipt requested), addressed as follows or addressed to such other addressee or address as the Party to receive such notice shall have designated by written notice as required by this Section 10.4. Notice shall be deemed to have been effective and properly delivered or made on the earlier of (a) if given by personal delivery, the date of actual delivery, (b) if sent by certified or registered mail, the first business day that is at least four (4) calendar days after the notice or payment has been deposited in the U.S. mails in accordance with this Section 10.4:

If to Pechanga:

Mark Macarro
Chairman
Pechanga Band of Luiseño Indians

P.O. Box 1477
Temecula, CA 92593

With a copy to:

General Counsel
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92592

If to EMWD:

Paul D. Jones II
General Manager
Eastern Municipal Water District
2270 Trumble Road
P.O. Box 8300
Perris, CA 92572-8300

If to MWD:

General Manager
The Metropolitan Water District of Southern California
By personal service or overnight delivery:
700 North Alameda Street
Los Angeles, CA 90012-2944
By U.S. mail:
P.O. Box 54153
Los Angeles, CA 90054-0153

With a copy to:

Manager, Water Resource Management Group
The Metropolitan Water District of Southern California
By personal service or overnight delivery:
700 North Alameda Street
Los Angeles, CA 90012-2944
By U.S. mail:
P.O. Box 54153
Los Angeles, CA 90054-0153

10.5 Uncontrollable Force. No Party shall be considered to be in default in the performance of any of its obligations under this Agreement when a failure of performance shall be due to an uncontrollable force. The term "***uncontrollable force***" shall mean an action of the elements, the act or threat of any public enemy; Acts of God; court order; war and war defense conditions; and strikes or other labor disputes; or other causes beyond its control. Each Party

shall use reasonable diligence to avoid any such delay or default and to resume performance under this Agreement as promptly as possible after any such delay or default. However, nothing contained herein shall be construed so as to require a Party to settle any strike or labor dispute in which it may be involved. A Party rendered unable to fulfill any of its obligations under this Agreement by reason of an uncontrollable force shall give prompt written notice of such fact to the other Parties and shall exercise due diligence to remove such inability to the fullest extent practicable with all reasonable dispatch.

10.6 Entire Agreement; Exclusivity.

10.6.1 Entire Agreement Among the Parties. This Agreement, together with the Exhibits, constitutes the entire agreement and understanding of the Parties in respect of the subject matter hereof and supersedes all prior understandings, agreements, statements, contracts, or representations by or among the Parties and their agents, written or oral, to the extent they relate to the subject matter hereof.

10.6.2 Exclusivity of Terms and Conditions of Service. This Agreement, and the ESAA Water Delivery Agreement, exclusively shall govern the terms and conditions of the sale and provision of water by EMWD to Pechanga.

10.7 Amendments. No amendment, modification, waiver, replacement, termination, or cancellation of any provision of this Agreement shall be valid, unless the same is in writing and signed by the Parties. Notwithstanding this provision, Pechanga acknowledges and contractually agrees to comply with the terms and conditions for service as set forth in the MWD and EMWD Administrative Codes as amended over time as is required of all other Metropolitan and EMWD customers. As set forth in Section 3.1, Pechanga also acknowledges and contractually agrees to comply with any other state or federal laws that apply to Metropolitan's or EMWD's provision of water as is required of all other Metropolitan and EMWD customers.

10.8 Waivers. No waiver by a Party of any breach by another Party of any of the terms or conditions of this Agreement, or of any right of such Party hereunder, shall be construed as a waiver of any other term, condition or right, or as a waiver of any subsequent breach by the other Party of the same or other terms or conditions, or as a waiver of the future exercise by such Party of the same or any other right. Neither the failure nor any delay on the part of a Party to insist on the strict performance of any term or condition of this Agreement or to exercise any right or remedy under this Agreement will operate as a waiver thereof, nor does any single or partial exercise of any right or remedy preclude any other or subsequent exercise of the same or of any other right or remedy to the same extent as all other Metropolitan customers.

10.9 Governing Law. This Agreement shall be interpreted, governed by, and construed under and in accordance with all applicable federal and State of California laws, Metropolitan's Act and Administrative Code, the Municipal Water District Act (EMWD's enabling authority), EMWD's Administrative Code, and all contracts governing the provision of water under this Agreement.

10.10 Severability. The provisions of this Agreement will be deemed severable and the invalidity or unenforceability of any provision will not affect the validity or enforceability of the

other provisions hereof; provided, however, that, if any provision of this Agreement, as applied to a Party or to any circumstance, is determined not to be enforceable in accordance with its terms, the Parties agree that the provision may be modified in a manner consistent with its objectives such that it is enforceable, and/or specific words or phrases may be deleted, and in its modified form, such provision will then be enforceable and will be enforced.

10.11 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be considered an original but all of which, taken together, shall constitute one and the same instrument.

10.12 Approvals. A conditional approval of this Agreement or of the transactions contemplated hereby by a Party or any third party shall not be effective unless accepted in writing by all Parties; and no Party shall be under any obligation to agree to any conditions imposed by another Party or a third party on its (their) approval of this Agreement or of the transactions contemplated hereby.

IN WITNESS WHEREOF, the Parties have caused this Extension Of Service Area Agreement to be executed.

PECHANGA BAND OF LUISEÑO MISSION INDIANS

By:_____
Tribal Chairman

Date: 10/11/17

Approved as to form:

By:_____
General Counsel

EASTERN MUNICIPAL WATER DISTRICT

By:_____
General Manager

Date:_____

Approved as to form:

By:_____
General Counsel

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

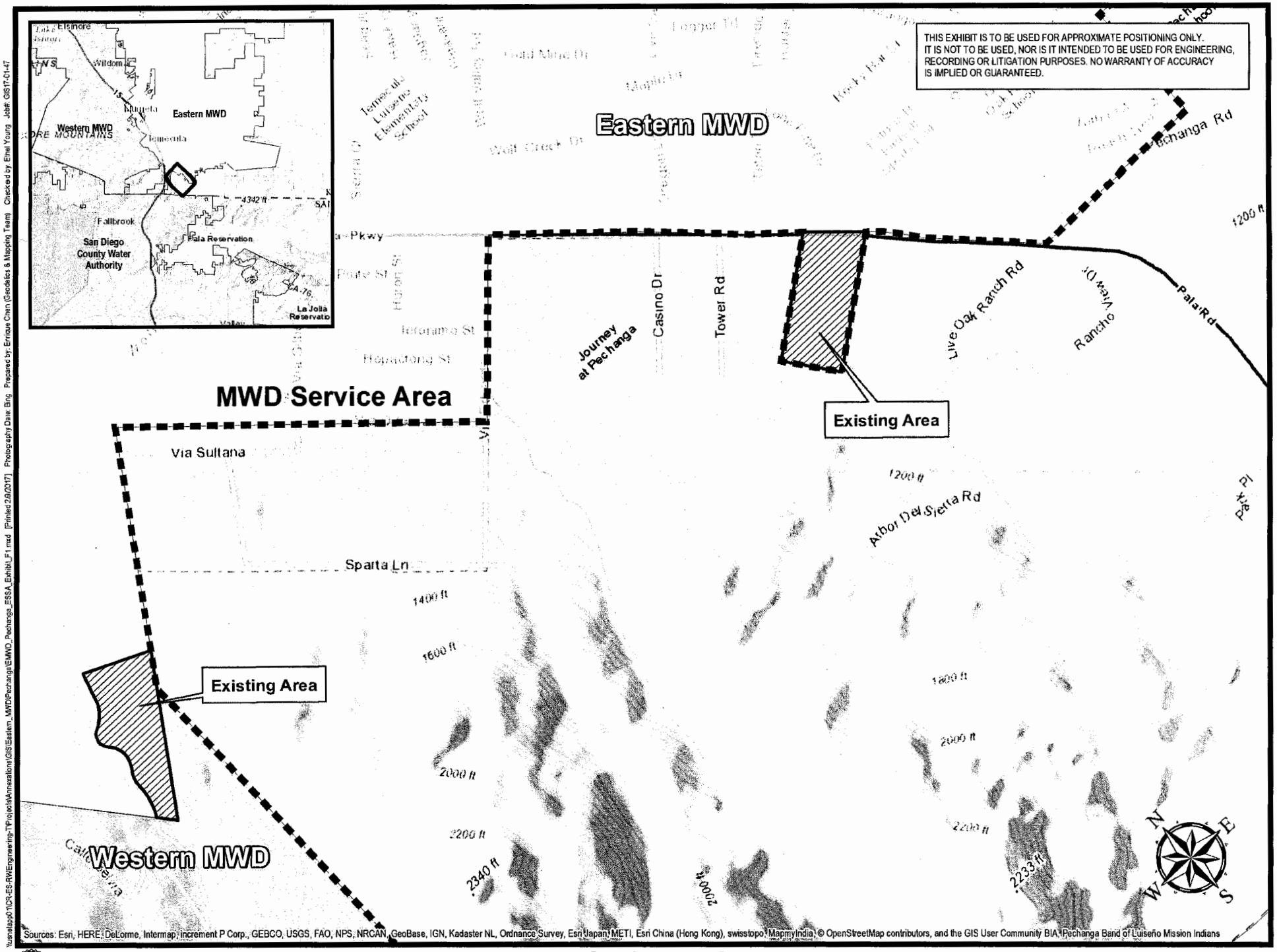
By:_____
General Manager CHAIRMAN OF THE BOARD

Date:_____

Approved as to form:

By:_____
General Counsel

Exhibit F-1



\\unelapp01\CR-ES-RW\Engineering-TP\Projects\Annexations\GIS\Eastern_MWD\Pechanga\EMWD_Pechanga_ESSA_Exhibit_F1.mxd [Printed 2/8/2017] Photography Date: Bing Prepared by: Enrique Chan (Geodetics & Mapping Team) Checked by: Ethel Young Job#: GIS17-01-47

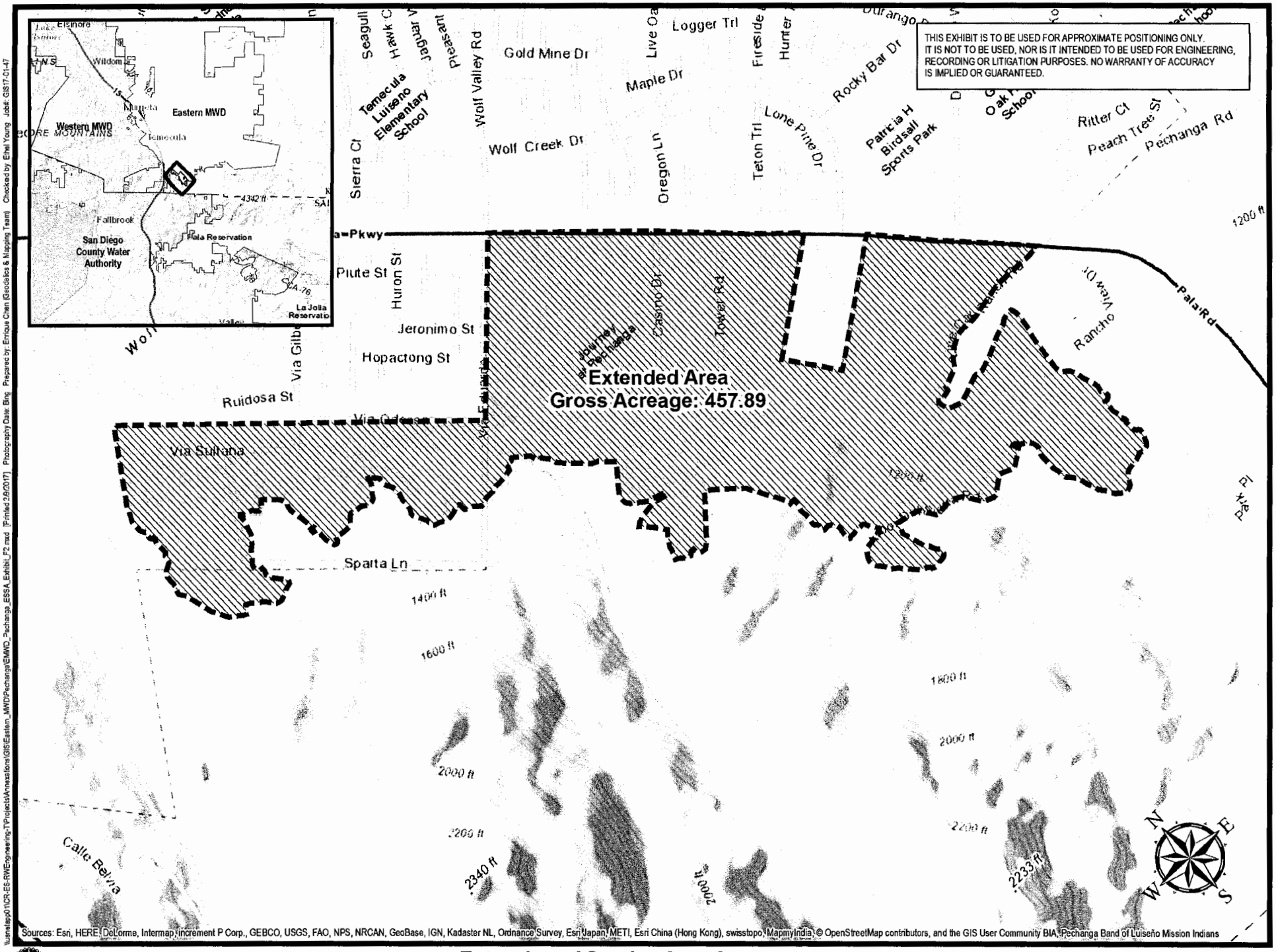
The Metropolitan Water District of Southern California
Engineering Services Group

Extension of Service Area Agreement

Exhibit F-1: Existing Area

Feet
0 250 500 1,000

Exhibit F-2



\\smwtep01\CR-ES-RWEngineering-T\Projects\Annexations\GIS\Eastern_MWD\Pechanga\EMWD_Pechanga_ESSA_Exhibit_F2.mxd [Printed:2/6/2017] Photography Date: Bing Prepared by: Enrique Chan (Geodatics & Mapping Team) Checked by: Ethel Young Job#: GIS17-0147

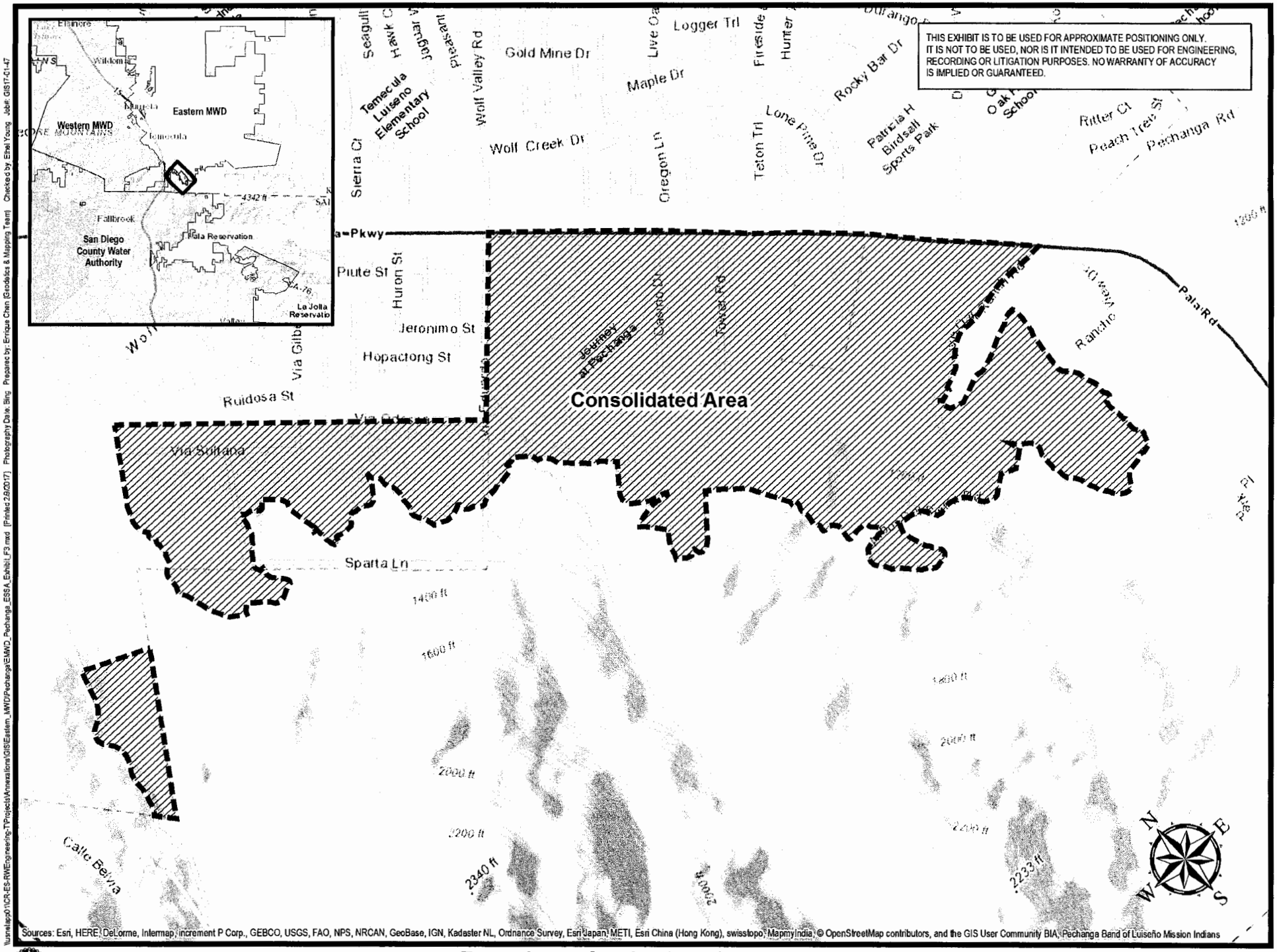
The Metropolitan Water District of Southern California
Engineering Services Group

Extension of Service Area Agreement

Exhibit F-2: Extended Area

Feet
0 250 500 1,000

Exhibit F-3



\\smallapp01\ICR-ES-RWEngineering-TProjects\Annexations\GIS\Eastern_MWD\Pechanga\EMWD_Pechanga_ESSA_Exhibit_F3.mxd [Printed:2/8/2017] Photography Date: Bing Prepared by: Enrique Chen (Geodetics & Mapping Team) Checked by: Ethel Young Job#: GIS17-01-47

The Metropolitan Water District of Southern California
Engineering Services Group

Extension of Service Area Agreement

Exhibit F-3: Consolidated Area

Feet
0 250 500 1,000

Exhibit F-4

RESOLUTION NO. 2016-032

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE EASTERN MUNICIPAL WATER DISTRICT MAKING APPLICATION TO THE LOCAL AGENCY FORMATION COMMISSION OF RIVERSIDE COUNTY FOR A REORGANIZATION PROCEEDING WHICH WILL RESULT IN THE CONCURRENT ANNEXATION OF CERTAIN PROPERTY OF EMWD AND MWD SERVICE AREA

WHEREAS, Eastern Municipal Water District (EMWD) is duly organized and exists under the provisions of the Municipal Water District Law of 1911 (Water Code, Section 71000 et seq.); and

WHEREAS, at the request of the beneficial owner of the property, the Pechanga Band of Luiseño Mission Indians, the Board of Directors of EMWD desires to initiate proceedings for the concurrent annexation to the certain territory hereinafter described and designated as the 106th Fringe Area to EMWD and MWD; and

WHEREAS, it has been determined that EMWD shall have service responsibility for the provision of water and sewer services in the territory described herein, and that, for the provision of such services, there shall not be any exchange of property tax revenue within the territory.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF EASTERN MUNICIPAL WATER DISTRICT, DOES HEREBY RESOLVE, DETERMINE AND ORDER AS FOLLOWS:

1. The Local Agency Formation Commission of Riverside County, California be hereby requested to initiate and pursue to completion a Reorganization proceeding, pursuant to the applicable provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Section 56000 *et seq.*, of the Government Code of the State of California), which will result in concurrent annexation of the 106th Fringe Area within EMWD and MWD service area;

2. The proposed 106th Fringe Area is materially developed, and a description of the boundaries of the territory is set forth in Exhibit D.

3. This proposal is consistent with the sphere of influence of EMWD and MWD;

4. The terms and conditions to be associated with such Reorganization are that:

   a. The owner(s) of the subject property shall be obligated to pay EMWD such sums of money as are in the future determined by EMWD's Board of Directors to be necessary to cover all of the District's expenses associated with the subject Reorganization proceedings, such payments to be paid prior to the completion of the Reorganization proceedings; and

   b. MWD shall, under terms and conditions fixed by its Board of Directors, concurrently extended service to the subject property;

5. The reasons for the proposed Reorganization are:

a. A final settlement of claims to water rights and certain claims for injuries to water rights in the Santa Margarita River Watershed. More specifically, the Pechanga Settlement Act satisfies Pechanga's claims against Rancho California Water District and the United States. EMWD and MWD, can fulfill the terms and conditions of said Settlement Act by providing water service to the subject property, in accordance with to the terms and conditions of the respective agencies; and

b. As the subject property develops in the future, it may require additional utility-type sewer collection, treatment and disposal system facilities and service. EMWD's current programs provide sewer facilities and service; any future expansion would be covered under the same programs;

6. This Board certifies that this project meets the criteria for Categorical Exemption provided for within CEQA Guidelines Section 15301 and 15319;

7. It is hereby requested that proceedings for annexation to EMWD and MWD's service area proposed herein be taken; and

8. There will be no transfer of ad valorem property tax revenue as a result of the concurrent annexation of subject territory, which is legally described on Exhibit D, to EMWD: and

9. The Secretary of EMWD is hereby authorized and directed to file a certified copy of this Resolution with the Executive Officer of the Local Agency Formation Commission of Riverside County, California.

10. This Resolution shall be effective upon its adoption.

DATED: March 16, 2016

Randy A. Record, President

I hereby certify that the foregoing is a full, true and correct copy of the Resolution adopted by the Board of Directors of the Eastern Municipal Water District at its meeting held on March 16, 2016.

ATTEST:

Sheila Zelaya, Board Secretary

(SEAL)

RESOLUTION NO. 2016-033

A RESOLUTION OF THE BOARD OF DIRECTORS OF EASTERN MUNICIPAL WATER DISTRICT MAKING APPLICATION TO THE BOARD OF DIRECTORS OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA FOR CONSENT TO ANNEX THE 106TH FRINGE AREA CONCURRENTLY TO EASTERN MUNICIPAL WATER DISTRICT AND THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

WHEREAS, Eastern Municipal Water District (EMWD) is duly organized and exists under the provisions of the Municipal Water District Law of 1911 (Water Code, Section 71000 et seq.); and

WHEREAS, Pechanga Band of Luiseño Mission Indians, a federally recognized Indian tribe and the beneficial owner(s) of the property described in attached Exhibit D, requested service to said property, hereinafter referred to as the 106th Fringe Area, concurrently to The Metropolitan Water District of Southern California (MWD) and Eastern Municipal Water District (EMWD); and

WHEREAS, said territory is uninhabited in that fewer than twelve (12) registered voters reside therein; and

WHEREAS, this Board of Directors, by its Resolution, has initiated proceedings for the annexation to said territory to EMWD and MWD pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Section 56000, *et seq.* of the Government Code); and

WHEREAS, the Local Agency Formation Commission of Riverside County is designated as the Conducting Authority for said proposed service area extension; and

WHEREAS, MWD's Board of Directors must give its consent for the annexation, and fix the terms and conditions upon which said territory may become a part of MWD's service area.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of EMWD as follows:

1. That EMWD does hereby apply to the Board of Directors of MWD for consent to an annexation to EMWD and concurrent annexation to MWD, that certain territory called the 106th Fringe Area, and for said Board of Directors to fix the terms and conditions for such annexation to MWD;

2. That the territory referred to as the 106th Fringe Area is located in the County of Riverside, State of California, and the exterior boundaries are more particularly described in attached Exhibit D; and

3. That the Secretary of EMWD is hereby directed to send a certified copy of this Resolution to the Board of Directors of MWD.

4. This Resolution shall be effective upon its adoption.

DATED: March 16, 2016

Randy A. Record, President

I hereby certify that the foregoing is a full, true and correct copy of the Resolution adopted by the Board of Directors of the Eastern Municipal Water District at its meeting held on March 16, 2016.

ATTEST:

Sheila Zelaya, Board Secretary

(SEAL)

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

BEING A PORTION OF LITTLE TEMECULA RANCHO TOGETHER WITH A PORTION OF SECTIONS 28, 29, 30, 32 AND 33 OF TOWNSHIP 8 SOUTH, RANGE 2 WEST, S.B.B&M. MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE INTERSECTION OF THE CENTERLINE OF PECHANGA PARKWAY(PALA ROAD PER RECORD OF SURVEY BOOK 54, PAGES 89 AND 90) AND THE CENTERLINE OF VIA EDUARDO AS SHOWN ON TRACT MAP 19939-2 FILED IN BOOK 170, PAGES 5 THROUGH 9 INCLUSIVE, BOTH RECORDS OF RIVERSIDE COUNTY, CALIFORNIA
THENCE SOUTHEASTERLY ALONG SAID CENTERLINE OF PECHANGA PARKWAY, ALSO BEING THE SOUTHWESTERLY LINE OF 13TH FRINGE AREA ANNEXATION 1967, SOUTH 47°44'44"EAST, A DISTANCE OF 30.03 FEET TO THE **TRUE POINT OF BEGINNING** SAID POINT BEING THE COMMON CORNER OF SAID TRACT MAP 19939-2 AND THE INDIAN RESERVATION PECHANGA AS SHOWN ON SAID TRACT MAP;
THENCE CONTINUING ALONG SAID CENTERLINE OF PECHANGA PARKWAY AS SHOWN ON SAID RECORD OF SURVEY AND SAID SOUTHWESTERLY LINE OF 13TH FRINGE AREA ANNEXATION 1967 THE FOLLOWING COURSES, SOUTH 47°44'44" EAST, A DISTANCE OF 1,636.90 FEET;
THENCE SOUTH 45°15'08" EAST, A DISTANCE OF 1,094.51 FEET;
THENCE SOUTH 48°07'47" EAST, A DISTANCE OF 556.12 FEET;
THENCE SOUTH 46°10'38" EAST, A DISTANCE OF 553.25 FEET;
THENCE SOUTH 42°45'22" EAST, A DISTANCE OF 138.15 FEET;
THENCE SOUTH 41°34'47" EAST, A DISTANCE OF 675.67 FEET;
THENCE SOUTH 44°49'05" EAST, A DISTANCE OF 609.18 FEET;
THENCE SOUTH 43°00'59" EAST, A DISTANCE OF 452.29 FEET;
THENCE SOUTHWESTERLY LEAVING SAID CENTERLINE, SOUTH 85°00'58" WEST, A DISTANCE OF 141.07 FEET;
THENCE NORTH 89°10'25" WEST, A DISTANCE OF 399.98 FEET;
THENCE SOUTH 86°38'11" WEST, A DISTANCE OF 45.33 FEET;
THENCE SOUTH 78°45'25" WEST, A DISTANCE OF 74.05 FEET;
THENCE SOUTH 76°55'49" WEST, A DISTANCE OF 267.72 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE NORTH, HAVING A RADIUS OF 544.69 FEET AND A RADIAL LINE THAT BEARS NORTH 15°23'17" WEST;
THENCE WESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 22°42'12" AND AN ARC DISTANCE OF 215.83 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE SOUTH, HAVING A RADIUS OF 216.44 FEET AND A RADIAL LINE THAT BEARS SOUTH 06°24'00" WEST;
THENCE WESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 36°47'50" AND AN ARC DISTANCE OF 139.00 FEET;
THENCE SOUTH 57°44'11" WEST, A DISTANCE OF 88.00 FEET;
THENCE SOUTH 51°16'39" WEST, A DISTANCE OF 70.23 FEET;
THENCE SOUTH 46°51'07" WEST, A DISTANCE OF 44.97 FEET;
THENCE SOUTH 33°18'45" WEST, A DISTANCE OF 100.23 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE SOUTH 66°50'37" WEST, A DISTANCE OF 226.39 FEET;
THENCE SOUTH 13°43'29" WEST, A DISTANCE OF 35.75 FEET;
THENCE SOUTH 75°32'33" WEST, A DISTANCE OF 55.25 FEET;
THENCE SOUTH 73°00'27" WEST, A DISTANCE OF 71.78 FEET;
THENCE NORTH 46°12'00" WEST, A DISTANCE OF 26.05 FEET;
THENCE SOUTH 42°28'04" WEST, A DISTANCE OF 26.20 FEET;
THENCE SOUTH 19°22'14" EAST, A DISTANCE OF 116.20 FEET;
THENCE SOUTH 71°04'44" EAST, A DISTANCE OF 151.55 FEET;
THENCE NORTH 68°23'44" EAST, A DISTANCE OF 300.60 FEET;
THENCE EAST, A DISTANCE OF 26.28 FEET;
THENCE SOUTH 78°47'39" EAST, A DISTANCE OF 39.85 FEET;
THENCE SOUTH 88°53'57" EAST, A DISTANCE OF 35.05 FEET;
THENCE NORTH 70°47'37" EAST, A DISTANCE OF 173.27 FEET;
THENCE NORTH 62°58'03" EAST, A DISTANCE OF 209.49 FEET;
THENCE NORTH 70°15'59" EAST, A DISTANCE OF 147.47 FEET;
THENCE NORTH 52°23'37" EAST, A DISTANCE OF 57.70 FEET;
THENCE NORTH 73°58'22" EAST, A DISTANCE OF 72.07 FEET;
THENCE SOUTH 83°09'46" EAST, A DISTANCE OF 43.60 FEET;
THENCE SOUTH 24°05'37" EAST, A DISTANCE OF 44.54 FEET;
THENCE SOUTH 00°14'20" EAST, A DISTANCE OF 64.84 FEET;
THENCE SOUTH 03°31'56" WEST, A DISTANCE OF 51.75 FEET;
THENCE SOUTH 06°42'02" WEST, A DISTANCE OF 122.62 FEET;
THENCE SOUTH 22°05'50" WEST, A DISTANCE OF 69.27 FEET;
THENCE SOUTH 06°08'19" WEST, A DISTANCE OF 427.84 FEET;
THENCE SOUTH 20°34'40" EAST, A DISTANCE OF 57.95 FEET;
THENCE SOUTH 49°34'44" EAST, A DISTANCE OF 91.24 FEET;
THENCE SOUTH 27°50'54" EAST, A DISTANCE OF 84.61 FEET;
THENCE SOUTH 07°11'23" EAST, A DISTANCE OF 65.17 FEET;
THENCE SOUTH 20°49'59" EAST, A DISTANCE OF 54.47 FEET;
THENCE SOUTH 19°17'24" EAST, A DISTANCE OF 94.74 FEET;
THENCE SOUTH 09°39'10" EAST, A DISTANCE OF 30.11 FEET;
THENCE SOUTH 07°12'19" WEST, A DISTANCE OF 28.35 FEET;
THENCE SOUTH 12°25'39" WEST, A DISTANCE OF 33.04 FEET;
THENCE SOUTH 16°42'45" EAST, A DISTANCE OF 24.73 FEET;
THENCE SOUTH 33°13'11" EAST, A DISTANCE OF 28.67 FEET;
THENCE SOUTH 03°30'49" EAST, A DISTANCE OF 32.52 FEET;
THENCE SOUTH 37°06'57" WEST, A DISTANCE OF 24.34 FEET;
THENCE SOUTH 69°34'59" WEST, A DISTANCE OF 25.79 FEET;
THENCE WEST, A DISTANCE OF 26.06 FEET;
THENCE SOUTH 09°01'53" WEST, A DISTANCE OF 47.89 FEET;
THENCE SOUTH 05°48'42" EAST, A DISTANCE OF 44.35 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE SOUTH 06°02'23" WEST, A DISTANCE OF 37.79 FEET;
THENCE SOUTH 17°58'06" EAST, A DISTANCE OF 43.19 FEET;
THENCE SOUTH 07°08'13" EAST, A DISTANCE OF 45.59 FEET;
THENCE SOUTH 06°31'11" WEST, A DISTANCE OF 31.99 FEET;
THENCE SOUTH 57°40'18" EAST, A DISTANCE OF 10.63 FEET;
THENCE SOUTH 39°56'15" EAST, A DISTANCE OF 15.66 FEET;
THENCE SOUTH 01°14'44" EAST, A DISTANCE OF 25.10 FEET;
THENCE SOUTH 43°52'00" WEST, A DISTANCE OF 23.01 FEET;
THENCE SOUTH 00°36'18" EAST, A DISTANCE OF 96.60 FEET;
THENCE SOUTH 34°38'47" EAST, A DISTANCE OF 45.08 FEET;
THENCE SOUTH 69°52'45" EAST, A DISTANCE OF 22.41 FEET;
THENCE SOUTH 22°28'03" EAST, A DISTANCE OF 17.53 FEET;
THENCE SOUTH 00°27'28" WEST, A DISTANCE OF 38.48 FEET;
THENCE SOUTH 28°45'44" WEST, A DISTANCE OF 35.04 FEET;
THENCE SOUTH 18°57'05" WEST, A DISTANCE OF 67.21 FEET;
THENCE SOUTH 34°09'35" WEST, A DISTANCE OF 37.42 FEET;
THENCE SOUTH 75°58'15" WEST, A DISTANCE OF 76.98 FEET;
THENCE NORTH 67°38'13" WEST, A DISTANCE OF 21.77 FEET;
THENCE NORTH 75°24'16" WEST, A DISTANCE OF 19.56 FEET;
THENCE SOUTH 55°19'04" WEST, A DISTANCE OF 25.67 FEET;
THENCE SOUTH 72°46'19" WEST, A DISTANCE OF 54.16 FEET;
THENCE SOUTH 80°53'04" WEST, A DISTANCE OF 79.02 FEET;
THENCE SOUTH 83°46'02" WEST, A DISTANCE OF 35.28 FEET;
THENCE SOUTH 64°43'09" WEST, A DISTANCE OF 31.80 FEET;
THENCE SOUTH 38°57'19" WEST, A DISTANCE OF 46.68 FEET;
THENCE SOUTH 32°14'42" WEST, A DISTANCE OF 93.72 FEET;
THENCE SOUTH 54°12'42" WEST, A DISTANCE OF 30.23 FEET;
THENCE SOUTH 78°05'03" WEST, A DISTANCE OF 38.05 FEET;
THENCE NORTH 75°19'32" WEST, A DISTANCE OF 36.23 FEET;
THENCE NORTH 56°11'11" WEST, A DISTANCE OF 45.72 FEET;
THENCE NORTH 49°50'58" WEST, A DISTANCE OF 51.44 FEET;
THENCE NORTH 36°29'56" WEST, A DISTANCE OF 30.88 FEET;
THENCE NORTH 22°24'37" WEST, A DISTANCE OF 44.30 FEET;
THENCE NORTH 35°36'48" WEST, A DISTANCE OF 51.72 FEET;
THENCE NORTH 41°51'50" WEST, A DISTANCE OF 49.01 FEET;
THENCE NORTH 17°34'10" WEST, A DISTANCE OF 71.07 FEET;
THENCE NORTH 27°43'58" WEST, A DISTANCE OF 45.87 FEET;
THENCE NORTH 15°33'24" WEST, A DISTANCE OF 110.23 FEET;
THENCE NORTH 31°03'01" WEST, A DISTANCE OF 48.14 FEET;
THENCE NORTH 41°41'26" WEST, A DISTANCE OF 57.28 FEET;
THENCE NORTH 45°01'08" WEST, A DISTANCE OF 35.52 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE NORTH 18°20'15" WEST, A DISTANCE OF 38.47 FEET;
THENCE NORTH 04°44'50" WEST, A DISTANCE OF 74.02 FEET;
THENCE NORTH 17°16'47" WEST, A DISTANCE OF 61.08 FEET;
THENCE NORTH 01°25'41" WEST, A DISTANCE OF 55.92 FEET;
THENCE NORTH 02°19'20" EAST, A DISTANCE OF 39.96 FEET;
THENCE NORTH 05°59'52" WEST, A DISTANCE OF 49.86 FEET;
THENCE NORTH 09°54'46" EAST, A DISTANCE OF 35.80 FEET;
THENCE NORTH 24°47'42" EAST, A DISTANCE OF 79.41 FEET;
THENCE NORTH 01°01'40" EAST, A DISTANCE OF 34.81 FEET;
THENCE NORTH 17°48'35" WEST, A DISTANCE OF 43.05 FEET;
THENCE NORTH 39°52'45" WEST, A DISTANCE OF 34.52 FEET;
THENCE NORTH 54°20'30" WEST, A DISTANCE OF 95.49 FEET;
THENCE NORTH 44°38'24" WEST, A DISTANCE OF 116.06 FEET;
THENCE SOUTH 19°26'35" EAST, A DISTANCE OF 108.20 FEET;
THENCE SOUTH 53°39'34" WEST, A DISTANCE OF 212.08 FEET;
THENCE NORTH 67°11'51" WEST, A DISTANCE OF 165.97 FEET;
THENCE SOUTH 53°23'43" WEST, A DISTANCE OF 220.98 FEET;
THENCE SOUTH 81°51'52" WEST, A DISTANCE OF 34.43 FEET;
THENCE NORTH 68°31'23" WEST, A DISTANCE OF 109.85 FEET;
THENCE NORTH 43°44'07" WEST, A DISTANCE OF 33.55 FEET;
THENCE NORTH 31°58'23" WEST, A DISTANCE OF 126.93 FEET;
THENCE NORTH 39°41'47" WEST, A DISTANCE OF 67.89 FEET;
THENCE NORTH 54°54'18" WEST, A DISTANCE OF 34.42 FEET;
THENCE NORTH 69°25'20" WEST, A DISTANCE OF 83.47 FEET;
THENCE NORTH 78°45'46" WEST, A DISTANCE OF 47.42 FEET;
THENCE SOUTH 81°45'48" WEST, A DISTANCE OF 98.33 FEET;
THENCE SOUTH 77°40'26" WEST, A DISTANCE OF 27.28 FEET;
THENCE NORTH 85°12'31" WEST, A DISTANCE OF 24.99 FEET;
THENCE NORTH 71°46'30" WEST, A DISTANCE OF 26.13 FEET;
THENCE NORTH 35°04'18" WEST, A DISTANCE OF 36.75 FEET;
THENCE NORTH 25°07'31" WEST, A DISTANCE OF 71.58 FEET;
THENCE NORTH 37°27'16" WEST, A DISTANCE OF 59.68 FEET;
THENCE NORTH 56°20'02" WEST, A DISTANCE OF 45.91 FEET;
THENCE NORTH 73°57'13" WEST, A DISTANCE OF 49.18 FEET;
THENCE NORTH 81°20'53" WEST, A DISTANCE OF 103.13 FEET;
THENCE NORTH 79°13'41" WEST, A DISTANCE OF 68.82 FEET;
THENCE SOUTH 22°01'08" WEST, A DISTANCE OF 120.61 FEET;
THENCE SOUTH 18°20'45" EAST, A DISTANCE OF 264.69 FEET;
THENCE SOUTH 47°40'30" EAST, A DISTANCE OF 23.96 FEET;
THENCE SOUTH 35°02'27" EAST, A DISTANCE OF 24.26 FEET;
THENCE SOUTH 27°49'54" EAST, A DISTANCE OF 26.05 FEET;
THENCE SOUTH 22°14'22" EAST, A DISTANCE OF 35.98 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE SOUTH 33°51'36" EAST, A DISTANCE OF 7.89 FEET;
THENCE SOUTH 43°51'51" EAST, A DISTANCE OF 37.95 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE NORTHWEST, HAVING A RADIUS OF 59.20 FEET AND A RADIAL LINE THAT BEARS SOUTH 56°08'43" WEST;
THENCE SOUTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 116°36'44" AND AN ARC DISTANCE OF 120.49 FEET;
THENCE SOUTH 80°17'33" WEST, A DISTANCE OF 25.47 FEET;
THENCE SOUTH 81°49'32" WEST, A DISTANCE OF 24.03 FEET;
THENCE SOUTH 80°16'23" WEST, A DISTANCE OF 51.78 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE NORTHEAST, HAVING A RADIUS OF 59.58 FEET AND A RADIAL LINE THAT BEARS NORTH 04°01'42" WEST;
THENCE NORTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 54°32'53" AND AN ARC DISTANCE OF 56.72 FEET;
THENCE NORTH 35°07'15" WEST, A DISTANCE OF 30.40 FEET;
THENCE NORTH 49°02'01" WEST, A DISTANCE OF 13.10 FEET;
THENCE NORTH 66°33'10" WEST, A DISTANCE OF 31.38 FEET;
THENCE NORTH 66°10'50" WEST, A DISTANCE OF 11.83 FEET;
THENCE NORTH 63°55'01" WEST, A DISTANCE OF 30.89 FEET;
THENCE NORTH 45°16'27" WEST, A DISTANCE OF 72.53 FEET;
THENCE NORTH 42°35'39" WEST, A DISTANCE OF 158.13 FEET;
THENCE NORTH 52°30'03" WEST, A DISTANCE OF 81.98 FEET;
THENCE NORTH 28°39'00" WEST, A DISTANCE OF 36.92 FEET;
THENCE NORTH 24°44'50" WEST, A DISTANCE OF 41.04 FEET;
THENCE NORTH 44°45'56" WEST, A DISTANCE OF 63.32 FEET;
THENCE NORTH 32°35'51" WEST, A DISTANCE OF 46.48 FEET;
THENCE NORTH 09°06'29" WEST, A DISTANCE OF 41.85 FEET;
THENCE NORTH 15°13'43" EAST, A DISTANCE OF 43.45 FEET;
THENCE NORTH 28°11'15" EAST, A DISTANCE OF 43.63 FEET;
THENCE NORTH 42°06'12" EAST, A DISTANCE OF 56.94 FEET;
THENCE NORTH 71°05'10" EAST, A DISTANCE OF 50.76 FEET;
THENCE NORTH 82°09'29" EAST, A DISTANCE OF 149.77 FEET;
THENCE SOUTH 88°56'08" EAST, A DISTANCE OF 20.09 FEET;
THENCE NORTH 17°31'49" WEST, A DISTANCE OF 21.80 FEET;
THENCE NORTH 61°08'03" EAST, A DISTANCE OF 32.12 FEET;
THENCE NORTH 30°12'26" WEST, A DISTANCE OF 52.63 FEET;
THENCE NORTH 43°42'37" WEST, A DISTANCE OF 43.99 FEET;
THENCE NORTH 23°14'44" WEST, A DISTANCE OF 61.47 FEET;
THENCE NORTH 62°47'35" WEST, A DISTANCE OF 22.20 FEET;
THENCE NORTH 87°07'06" WEST, A DISTANCE OF 80.75 FEET;
THENCE SOUTH 79°00'42" WEST, A DISTANCE OF 53.19 FEET;
THENCE NORTH 89°47'56" WEST, A DISTANCE OF 31.14 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE SOUTH 72°48'20" WEST, A DISTANCE OF 30.78 FEET;
THENCE NORTH 60°53'23" WEST, A DISTANCE OF 16.99 FEET;
THENCE NORTH 16°32'43" WEST, A DISTANCE OF 19.52 FEET;
THENCE NORTH 08°26'32" EAST, A DISTANCE OF 130.99 FEET;
THENCE NORTH 12°47'58" WEST, A DISTANCE OF 26.92 FEET;
THENCE NORTH 37°43'48" WEST, A DISTANCE OF 58.04 FEET;
THENCE NORTH 53°10'42" WEST, A DISTANCE OF 34.27 FEET;
THENCE NORTH 88°36'06" WEST, A DISTANCE OF 27.76 FEET;
THENCE SOUTH 80°45'20" WEST, A DISTANCE OF 33.96 FEET;
THENCE NORTH 64°07'22" WEST, A DISTANCE OF 24.15 FEET;
THENCE NORTH 16°18'00" WEST, A DISTANCE OF 17.76 FEET;
THENCE NORTH 17°47'16" EAST, A DISTANCE OF 46.13 FEET;
THENCE NORTH 22°15'40" WEST, A DISTANCE OF 23.29 FEET;
THENCE NORTH 51°01'26" WEST, A DISTANCE OF 31.00 FEET;
THENCE NORTH 11°27'14" WEST, A DISTANCE OF 24.60 FEET;
THENCE NORTH 12°27'29" EAST, A DISTANCE OF 78.85 FEET;
THENCE NORTH 04°01'19" WEST, A DISTANCE OF 57.00 FEET;
THENCE NORTH 11°07'45" WEST, A DISTANCE OF 43.30 FEET;
THENCE NORTH 16°03'23" EAST, A DISTANCE OF 33.49 FEET;
THENCE NORTH 26°10'58" EAST, A DISTANCE OF 30.63 FEET;
THENCE NORTH 03°00'06" EAST, A DISTANCE OF 27.38 FEET;
THENCE NORTH 07°32'16" WEST, A DISTANCE OF 41.98 FEET;
THENCE NORTH 89°45'01" WEST, A DISTANCE OF 44.89 FEET;
THENCE NORTH 05°19'07" WEST, A DISTANCE OF 28.69 FEET;
THENCE NORTH 29°54'59" WEST, A DISTANCE OF 467.72 FEET;
THENCE NORTH 49°28'01" WEST, A DISTANCE OF 354.14 FEET;
THENCE NORTH 63°03'10" WEST, A DISTANCE OF 39.70 FEET;
THENCE NORTH 52°09'01" WEST, A DISTANCE OF 37.35 FEET;
THENCE SOUTH 40°38'20" WEST, A DISTANCE OF 430.71 FEET;
THENCE SOUTH 37°43'56" WEST, A DISTANCE OF 67.71 FEET;
THENCE SOUTH 50°53'07" WEST, A DISTANCE OF 101.53 FEET;
THENCE NORTH 84°57'42" WEST, A DISTANCE OF 46.05 FEET;
THENCE NORTH 60°20'51" WEST, A DISTANCE OF 44.51 FEET;
THENCE NORTH 09°32'40" WEST, A DISTANCE OF 56.96 FEET;
THENCE NORTH 86°56'10" WEST, A DISTANCE OF 25.22 FEET;
THENCE SOUTH 55°00'45" WEST, A DISTANCE OF 51.02 FEET;
THENCE NORTH 77°20'26" WEST, A DISTANCE OF 52.88 FEET;
THENCE NORTH 45°16'35" WEST, A DISTANCE OF 64.17 FEET;
THENCE NORTH 63°03'38" WEST, A DISTANCE OF 52.04 FEET;
THENCE NORTH 29°40'43" EAST, A DISTANCE OF 57.71 FEET;
THENCE NORTH 11°21'28" EAST, A DISTANCE OF 85.36 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE NORTH 34°15'27" EAST, A DISTANCE OF 121.56 FEET;
THENCE NORTH 37°31'43" EAST, A DISTANCE OF 58.68 FEET;
THENCE NORTH 38°15'56" WEST, A DISTANCE OF 164.21 FEET;
THENCE NORTH 44°05'38" WEST, A DISTANCE OF 132.74 FEET;
THENCE NORTH 52°55'04" EAST, A DISTANCE OF 52.60 FEET;
THENCE NORTH 71°31'10" EAST, A DISTANCE OF 60.47 FEET;
THENCE NORTH 81°03'14" EAST, A DISTANCE OF 139.31 FEET;
THENCE NORTH 89°14'53" EAST, A DISTANCE OF 62.57 FEET;
THENCE SOUTH 75°59'05" EAST, A DISTANCE OF 116.64 FEET;
THENCE SOUTH 87°01'42" EAST, A DISTANCE OF 19.20 FEET;
THENCE NORTH 28°20'49" EAST, A DISTANCE OF 24.69 FEET;
THENCE NORTH 62°21'34" WEST, A DISTANCE OF 34.07 FEET;
THENCE NORTH 73°19'11" WEST, A DISTANCE OF 99.86 FEET;
THENCE NORTH 78°30'40" WEST, A DISTANCE OF 57.91 FEET;
THENCE NORTH 62°25'44" WEST, A DISTANCE OF 48.47 FEET;
THENCE NORTH 50°29'14" WEST, A DISTANCE OF 82.29 FEET;
THENCE NORTH 55°05'17" WEST, A DISTANCE OF 66.34 FEET;
THENCE NORTH 43°43'29" WEST, A DISTANCE OF 31.03 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE EAST, HAVING A RADIUS OF 120.52 FEET AND A RADIAL LINE THAT BEARS NORTH 58°16'44" EAST;
THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 72°45'13" AND AN ARC DISTANCE OF 153.04 FEET;
THENCE NORTH 35°33'21" EAST, A DISTANCE OF 81.46 FEET;
THENCE NORTH 39°13'31" EAST, A DISTANCE OF 240.88 FEET;
THENCE NORTH 45°56'44" WEST, A DISTANCE OF 186.67 FEET;
THENCE NORTH 65°48'16" WEST, A DISTANCE OF 72.06 FEET;
THENCE NORTH 45°51'01" WEST, A DISTANCE OF 358.72 FEET;
THENCE NORTH 17°02'39" WEST, A DISTANCE OF 77.53 FEET;
THENCE NORTH 38°56'33" WEST, A DISTANCE OF 98.32 FEET;
THENCE NORTH 73°39'23" WEST, A DISTANCE OF 55.12 FEET;
THENCE NORTH 10°22'39" WEST, A DISTANCE OF 77.02 FEET;
THENCE NORTH 52°36'14" WEST, A DISTANCE OF 193.94 FEET;
THENCE SOUTH 62°57'56" WEST, A DISTANCE OF 37.49 FEET;
THENCE NORTH 89°49'17" WEST, A DISTANCE OF 31.81 FEET;
THENCE NORTH 76°30'52" WEST, A DISTANCE OF 19.57 FEET;
THENCE SOUTH 75°30'58" WEST, A DISTANCE OF 13.84 FEET;
THENCE SOUTH 08°47'41" EAST, A DISTANCE OF 27.17 FEET;
THENCE SOUTH 28°05'13" WEST, A DISTANCE OF 40.42 FEET;
THENCE SOUTH 80°21'35" WEST, A DISTANCE OF 154.72 FEET;
THENCE NORTH 85°07'52" WEST, A DISTANCE OF 52.26 FEET;
THENCE SOUTH 74°47'30" WEST, A DISTANCE OF 80.23 FEET;
THENCE SOUTH 89°47'52" WEST, A DISTANCE OF 77.08 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE SOUTH 74°53'49" WEST, A DISTANCE OF 44.94 FEET;
THENCE SOUTH 57°47'55" WEST, A DISTANCE OF 42.54 FEET;
THENCE NORTH 84°34'19" WEST, A DISTANCE OF 22.26 FEET;
THENCE NORTH 52°23'00" WEST, A DISTANCE OF 44.89 FEET;
THENCE NORTH 47°22'56" WEST, A DISTANCE OF 47.69 FEET;
THENCE NORTH 73°26'11" WEST, A DISTANCE OF 44.65 FEET;
THENCE NORTH 72°50'36" WEST, A DISTANCE OF 24.00 FEET;
THENCE NORTH 42°43'50" WEST, A DISTANCE OF 24.56 FEET;
THENCE NORTH 20°39'11" WEST, A DISTANCE OF 19.63 FEET;
THENCE NORTH 02°45'28" WEST, A DISTANCE OF 52.03 FEET;
THENCE NORTH 39°43'14" WEST, A DISTANCE OF 19.57 FEET;
THENCE SOUTH 82°35'59" WEST, A DISTANCE OF 9.92 FEET;
THENCE SOUTH 68°20'10" WEST, A DISTANCE OF 85.30 FEET;
THENCE SOUTH 77°58'34" WEST, A DISTANCE OF 63.48 FEET;
THENCE NORTH 84°16'11" WEST, A DISTANCE OF 44.56 FEET;
THENCE NORTH 66°39'50" WEST, A DISTANCE OF 46.70 FEET;
THENCE NORTH 61°55'13" WEST, A DISTANCE OF 35.28 FEET;
THENCE NORTH 78°10'42" WEST, A DISTANCE OF 46.00 FEET;
THENCE NORTH 47°39'38" WEST, A DISTANCE OF 21.40 FEET;
THENCE NORTH 11°32'30" WEST, A DISTANCE OF 53.57 FEET;
THENCE NORTH 07°43'38" WEST, A DISTANCE OF 26.93 FEET;
THENCE NORTH 28°52'55" WEST, A DISTANCE OF 157.01 FEET;
THENCE NORTH 07°05'08" EAST, A DISTANCE OF 25.26 FEET;
THENCE NORTH 27°06'33" EAST, A DISTANCE OF 53.07 FEET;
THENCE NORTH 08°07'11" EAST, A DISTANCE OF 50.85 FEET;
THENCE NORTH 00°05'27" WEST, A DISTANCE OF 54.09 FEET;
THENCE NORTH 10°38'41" EAST, A DISTANCE OF 52.06 FEET;
THENCE NORTH 17°12'50" EAST, A DISTANCE OF 35.07 FEET;
THENCE NORTH 00°18'17" EAST, A DISTANCE OF 59.95 FEET;
THENCE NORTH 11°35'10" WEST, A DISTANCE OF 37.42 FEET;
THENCE NORTH 26°19'22" WEST, A DISTANCE OF 38.37 FEET;
THENCE NORTH 36°37'53" WEST, A DISTANCE OF 31.77 FEET;
THENCE NORTH 14°45'26" WEST, A DISTANCE OF 30.94 FEET;
THENCE NORTH 09°47'40" EAST, A DISTANCE OF 64.49 FEET;
THENCE NORTH 24°08'28" WEST, A DISTANCE OF 21.40 FEET;
THENCE NORTH 46°46'00" WEST, A DISTANCE OF 64.88 FEET;
THENCE NORTH 20°06'58" WEST, A DISTANCE OF 27.32 FEET;
THENCE NORTH 07°36'08" WEST, A DISTANCE OF 28.45 FEET;
THENCE NORTH 81°30'31" WEST, A DISTANCE OF 5.53 FEET;
THENCE SOUTH 19°02'14" WEST, A DISTANCE OF 47.28 FEET;
THENCE SOUTH 16°05'09" WEST, A DISTANCE OF 51.48 FEET;
THENCE SOUTH 35°28'03" WEST, A DISTANCE OF 66.35 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE SOUTH 41°10'25" WEST, A DISTANCE OF 25.17 FEET;
THENCE SOUTH 32°23'01" WEST, A DISTANCE OF 61.64 FEET;
THENCE SOUTH 57°08'48" WEST, A DISTANCE OF 29.71 FEET;
THENCE SOUTH 79°26'45" WEST, A DISTANCE OF 44.48 FEET;
THENCE NORTH 62°36'39" WEST, A DISTANCE OF 26.55 FEET;
THENCE NORTH 51°48'20" WEST, A DISTANCE OF 48.81 FEET;
THENCE NORTH 74°15'11" WEST, A DISTANCE OF 37.44 FEET;
THENCE NORTH 87°39'05" WEST, A DISTANCE OF 56.83 FEET;
THENCE NORTH 71°02'00" WEST, A DISTANCE OF 52.95 FEET;
THENCE SOUTH 57°46'31" WEST, A DISTANCE OF 23.70 FEET;
THENCE SOUTH 41°47'28" WEST, A DISTANCE OF 59.18 FEET;
THENCE SOUTH 34°56'19" WEST, A DISTANCE OF 24.97 FEET;
THENCE SOUTH 54°00'55" WEST, A DISTANCE OF 27.13 FEET;
THENCE SOUTH 83°21'03" WEST, A DISTANCE OF 30.93 FEET;
THENCE NORTH 84°10'48" WEST, A DISTANCE OF 33.29 FEET;
THENCE SOUTH 88°19'16" WEST, A DISTANCE OF 38.19 FEET;
THENCE NORTH 75°02'21" WEST, A DISTANCE OF 49.74 FEET;
THENCE NORTH 67°21'35" WEST, A DISTANCE OF 21.39 FEET;
THENCE SOUTH 80°11'49" WEST, A DISTANCE OF 19.16 FEET;
THENCE SOUTH 36°14'51" WEST, A DISTANCE OF 16.35 FEET;
THENCE SOUTH 08°01'24" WEST, A DISTANCE OF 28.55 FEET;
THENCE SOUTH 45°11'22" WEST, A DISTANCE OF 22.52 FEET;
THENCE NORTH 87°10'58" WEST, A DISTANCE OF 18.46 FEET;
THENCE NORTH 54°27'38" WEST, A DISTANCE OF 21.08 FEET;
THENCE NORTH 29°05'56" WEST, A DISTANCE OF 33.34 FEET;
THENCE NORTH 09°21'18" WEST, A DISTANCE OF 66.42 FEET;
THENCE NORTH 01°24'30" WEST, A DISTANCE OF 140.84 FEET;
THENCE NORTH 78°21'49" WEST, A DISTANCE OF 39.91 FEET;
THENCE NORTH 00°40'45" WEST, A DISTANCE OF 35.11 FEET;
THENCE NORTH 85°11'56" EAST, A DISTANCE OF 33.89 FEET;
THENCE NORTH 10°37'17" WEST, A DISTANCE OF 266.22 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE EAST, HAVING A RADIUS OF 147.72 FEET AND A RADIAL LINE THAT BEARS NORTH 79°25'24" EAST;
THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 44°13'29" AND AN ARC DISTANCE OF 114.02 FEET;
THENCE NORTH 21°48'52" WEST, A DISTANCE OF 29.88 FEET;
THENCE NORTH 16°18'30" WEST, A DISTANCE OF 26.35 FEET;
THENCE NORTH 37°29'35" WEST, A DISTANCE OF 41.61 FEET;
THENCE NORTH 46°08'36" WEST, A DISTANCE OF 74.38 FEET;
THENCE NORTH 46°02'22" WEST, A DISTANCE OF 67.60 FEET;
THENCE NORTH 50°37'35" WEST, A DISTANCE OF 20.11 FEET;
THENCE NORTH 60°31'48" WEST, A DISTANCE OF 16.84 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE SOUTH 35°55'32" WEST, A DISTANCE OF 62.62 FEET;
THENCE SOUTH 45°18'12" WEST, A DISTANCE OF 17.11 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTH, HAVING A RADIUS OF 36.10 FEET;
THENCE WESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 89°31'37", AND AN ARC DISTANCE OF 56.41 FEET;
THENCE NORTH 44°33'39" WEST, A DISTANCE OF 39.19 FEET;
THENCE NORTH 40°42'11" WEST, A DISTANCE OF 18.41 FEET;
THENCE NORTH 66°44'23" WEST, A DISTANCE OF 39.74 FEET;
THENCE NORTH 80°20'41" WEST, A DISTANCE OF 60.38 FEET;
THENCE NORTH 38°25'27" WEST, A DISTANCE OF 14.75 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE SOUTH, HAVING A RADIUS OF 14.02 FEET AND A RADIAL LINE THAT BEARS SOUTH 77°06'01" WEST;
THENCE WESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 171°10'13" AND AN ARC DISTANCE OF 41.88 FEET;
THENCE SOUTH 01°21'16" EAST, A DISTANCE OF 34.74 FEET;
THENCE SOUTH 11°58'52" WEST, A DISTANCE OF 55.48 FEET;
THENCE SOUTH 20°24'42" WEST, A DISTANCE OF 56.61 FEET;
THENCE SOUTH 15°56'36" WEST, A DISTANCE OF 63.36 FEET;
THENCE SOUTH 30°55'19" WEST, A DISTANCE OF 28.57 FEET;
THENCE SOUTH 44°33'26" WEST, A DISTANCE OF 34.63 FEET;
THENCE SOUTH 33°25'41" WEST, A DISTANCE OF 39.74 FEET;
THENCE SOUTH 53°25'18" WEST, A DISTANCE OF 59.15 FEET;
THENCE SOUTH 32°22'51" WEST, A DISTANCE OF 53.12 FEET;
THENCE SOUTH 38°45'16" WEST, A DISTANCE OF 48.46 FEET;
THENCE SOUTH 46°37'10" WEST, A DISTANCE OF 39.33 FEET;
THENCE SOUTH 26°26'45" WEST, A DISTANCE OF 32.80 FEET;
THENCE SOUTH 05°22'15" WEST, A DISTANCE OF 27.26 FEET;
THENCE SOUTH 22°40'20" EAST, A DISTANCE OF 53.57 FEET;
THENCE SOUTH 84°22'52" EAST, A DISTANCE OF 37.87 FEET;
THENCE SOUTH 02°42'58" WEST, A DISTANCE OF 33.86 FEET;
THENCE SOUTH 14°33'40" WEST, A DISTANCE OF 49.46 FEET;
THENCE SOUTH 11°38'35" EAST, A DISTANCE OF 37.87 FEET;
THENCE SOUTH 31°17'07" EAST, A DISTANCE OF 28.25 FEET;
THENCE SOUTH 40°57'47" EAST, A DISTANCE OF 131.06 FEET;
THENCE SOUTH 29°19'52" EAST, A DISTANCE OF 33.29 FEET;
THENCE SOUTH 01°38'36" EAST, A DISTANCE OF 20.46 FEET;
THENCE SOUTH 38°54'10" WEST, A DISTANCE OF 21.46 FEET;
THENCE SOUTH 71°10'34" WEST, A DISTANCE OF 77.44 FEET;
THENCE SOUTH 60°31'08" WEST, A DISTANCE OF 77.99 FEET;
THENCE SOUTH 77°56'00" WEST, A DISTANCE OF 44.87 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE NORTH 75°00'06" WEST, A DISTANCE OF 44.59 FEET;
THENCE NORTH 56°12'31" WEST, A DISTANCE OF 28.67 FEET;
THENCE NORTH 33°37'00" WEST, A DISTANCE OF 57.87 FEET;
THENCE NORTH 44°22'23" WEST, A DISTANCE OF 53.06 FEET;
THENCE NORTH 52°53'58" WEST, A DISTANCE OF 95.54 FEET;
THENCE NORTH 47°55'14" WEST, A DISTANCE OF 43.57 FEET;
THENCE NORTH 64°37'08" WEST, A DISTANCE OF 51.81 FEET;
THENCE SOUTH 46°36'45" WEST, A DISTANCE OF 77.43 FEET;
THENCE SOUTH 23°25'28" WEST, A DISTANCE OF 25.71 FEET;
THENCE NORTH 65°13'25" WEST, A DISTANCE OF 25.39 FEET;
THENCE NORTH 55°10'13" WEST, A DISTANCE OF 158.42 FEET;
THENCE NORTH 27°57'45" WEST, A DISTANCE OF 198.72 FEET;
THENCE NORTH 15°36'51" WEST, A DISTANCE OF 292.65 FEET;
THENCE NORTH 30°58'41" WEST, A DISTANCE OF 83.20 FEET;
THENCE NORTH 01°41'58" WEST, A DISTANCE OF 19.58 FEET;
THENCE NORTH 26°25'09" EAST, A DISTANCE OF 60.09 FEET;
THENCE NORTH 05°15'09" EAST, A DISTANCE OF 35.84 FEET;
THENCE NORTH 01°34'28" WEST, A DISTANCE OF 38.85 FEET;
THENCE NORTH 08°27'38" EAST, A DISTANCE OF 31.27 FEET;
THENCE NORTH 00°01'30" EAST, A DISTANCE OF 30.52 FEET;
THENCE NORTH 22°09'40" EAST, A DISTANCE OF 29.30 FEET;
THENCE NORTH 44°50'31" EAST, A DISTANCE OF 46.20 FEET;
THENCE NORTH 59°10'58" EAST, A DISTANCE OF 56.06 FEET;
THENCE NORTH 68°05'06" EAST, A DISTANCE OF 21.60 FEET;
THENCE NORTH 15°32'41" EAST, A DISTANCE OF 79.99 FEET;
THENCE NORTH 41°12'35" EAST, A DISTANCE OF 39.80 FEET;
THENCE NORTH, A DISTANCE OF 92.63 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE EAST, HAVING A RADIUS OF 84.34 FEET AND A RADIAL LINE THAT BEARS NORTH 72°57'17" EAST;
THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 48°09'33" AND AN ARC DISTANCE OF 70.89 FEET TO A REVERSE CURVE CONCAVE SOUTHWEST HAVING A RADIUS OF 23.10 FEET AND A RADIAL LINE THAT BEARS NORTH 58°53'10" WEST;
THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 86°11'59" AND AN ARC DISTANCE OF 34.75 FEET TO A REVERSE CURVE CONCAVE EASTERLY HAVING A RADIUS OF 42.13 FEET AND A RADIAL LINE THAT BEARS NORTH 34°54'51" EAST;
THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 83°00'33" AND AN ARC DISTANCE OF 61.04 FEET;
THENCE NORTH 27°55'24" EAST, A DISTANCE OF 32.90 FEET;
THENCE NORTH 44°41'25" WEST, A DISTANCE OF 26.92 FEET;
THENCE NORTH 28°17'16" WEST, A DISTANCE OF 33.56 FEET;
THENCE NORTH 14°38'19" WEST, A DISTANCE OF 43.39 FEET;
THENCE NORTH 00°49'38" WEST, A DISTANCE OF 51.39 FEET;

EXHIBIT

METROPOLITAN WATER DISTRICT
106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

THENCE NORTH 10°20'38" EAST, A DISTANCE OF 46.71 FEET;
THENCE NORTH 22°39'34" EAST, A DISTANCE OF 162.07 FEET TO A POINT ON THE LITTLE TEMECULA RANCHO LINE AS SHOWN ON PARCEL MAP 11533 FILED IN BOOK 63, PAGES 84 AND 85 RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, SAID RANCHO LINE ALSO BEING THE SOUTHEASTERLY LINE OF SAID 13TH FRINGE AREA ANNEXATION 1967;
THENCE NORTHEASTERLY ALONG SAID LINE, NORTH 34°05'49" EAST, A DISTANCE OF 528.27 FEET;
THENCE CONTINUING NORTHEASTERLY ALONG SAID LINE NORTH 34°05'49" EAST, A DISTANCE OF 333.06 FEET TO THE NORTHERLY CORNER OF LOT "A" OF SAID PARCEL MAP 11533, SAID NORTHERLY CORNER ALSO BEING THE WESTERLY CORNER OF 26TH FRINGE AREA ANNEXATION 1985;
THENCE SOUTHEASTERLY ALONG THE NORTHEASTERLY LINE OF PARCEL 1, LOTS "A", "D", "E", "F", AND "G" OF SAID PARCEL MAP 11533, ALSO BEING THE SOUTHWESTERLY LINE OF 26TH FRINGE AREA ANNEXATION 1985, SOUTH 47°44'42" EAST, A DISTANCE OF 3,857.78 FEET;
THENCE NORTHEASTERLY LEAVING SAID LINE AND ALONG THE SOUTHEASTERLY LINE OF SAID 26TH FRINGE AREA ANNEXATION 1985, NORTH 43°47'26" EAST, A DISTANCE OF 1,943.65 FEET TO THE **TRUE POINT OF BEGINNING**.

EXCEPTING THEREFROM THE "25TH FRINGE AREA ANNEXATION 1983" LYING WITHIN SAID DESCRIBED ABOVE PARCEL.

CONTAINING 457.89 ACRES, MORE OR LESS.

AS SHOWN ON EXHIBIT "B" ATTACHED HERETO MADE A PART THEREOF.

DENNIS W. JANDA
PLS. 6359

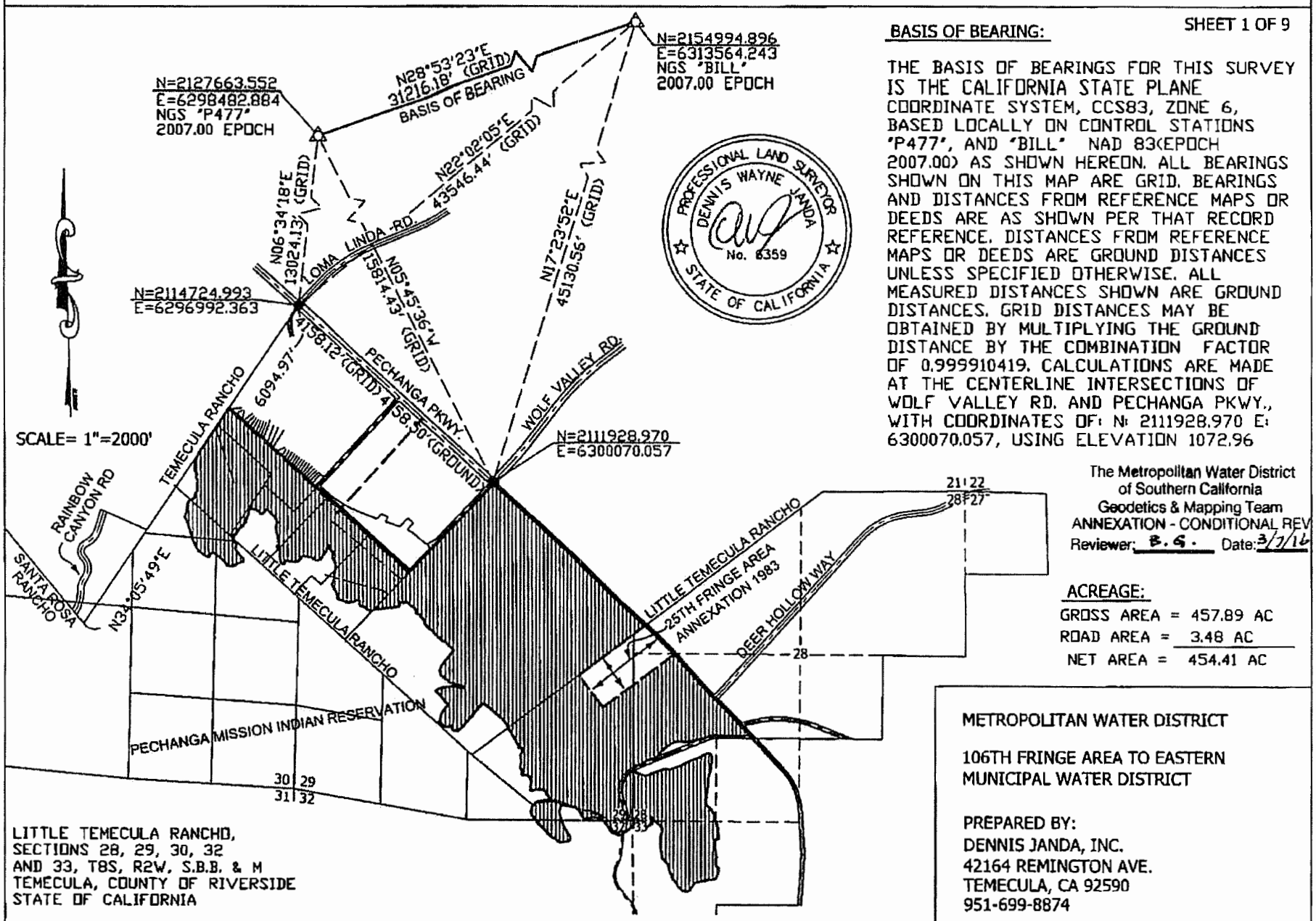
2 MARCH 16
DATED



The Metropolitan Water District
of Southern California
Geodetics & Mapping Team
ANNEXATION - CONDITIONAL REV
Reviewer: B.G. Date: 3/7/16

EXHIBIT

THIS EXHIBIT IS TO BE ATTACHED TO THE LEGAL DESCRIPTION



BASIS OF BEARING:

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, CCS83, ZONE 6, BASED LOCALLY ON CONTROL STATIONS "P477", AND "BILL" NAD 83(EPOCH 2007.00) AS SHOWN HEREON. ALL BEARINGS SHOWN ON THIS MAP ARE GRID. BEARINGS AND DISTANCES FROM REFERENCE MAPS OR DEEDS ARE AS SHOWN PER THAT RECORD REFERENCE. DISTANCES FROM REFERENCE MAPS OR DEEDS ARE GROUND DISTANCES UNLESS SPECIFIED OTHERWISE. ALL MEASURED DISTANCES SHOWN ARE GROUND DISTANCES. GRID DISTANCES MAY BE OBTAINED BY MULTIPLYING THE GROUND DISTANCE BY THE COMBINATION FACTOR OF 0.999910419. CALCULATIONS ARE MADE AT THE CENTERLINE INTERSECTIONS OF WOLF VALLEY RD. AND PECHANGA PKWY., WITH COORDINATES OF: N: 2111928.970 E: 6300070.057, USING ELEVATION 1072.96

The Metropolitan Water District
of Southern California
Geodetics & Mapping Team
ANNEXATION - CONDITIONAL REV
Reviewer: B.G. Date: 3/7/16

ACREAGE:

GROSS AREA =	457.89 AC
ROAD AREA =	3.48 AC
NET AREA =	454.41 AC

LITTLE TEMECULA RANCHO,
SECTIONS 28, 29, 30, 32
AND 33, T8S, R2W, S.B.B. & M
TEMECULA, COUNTY OF RIVERSIDE
STATE OF CALIFORNIA

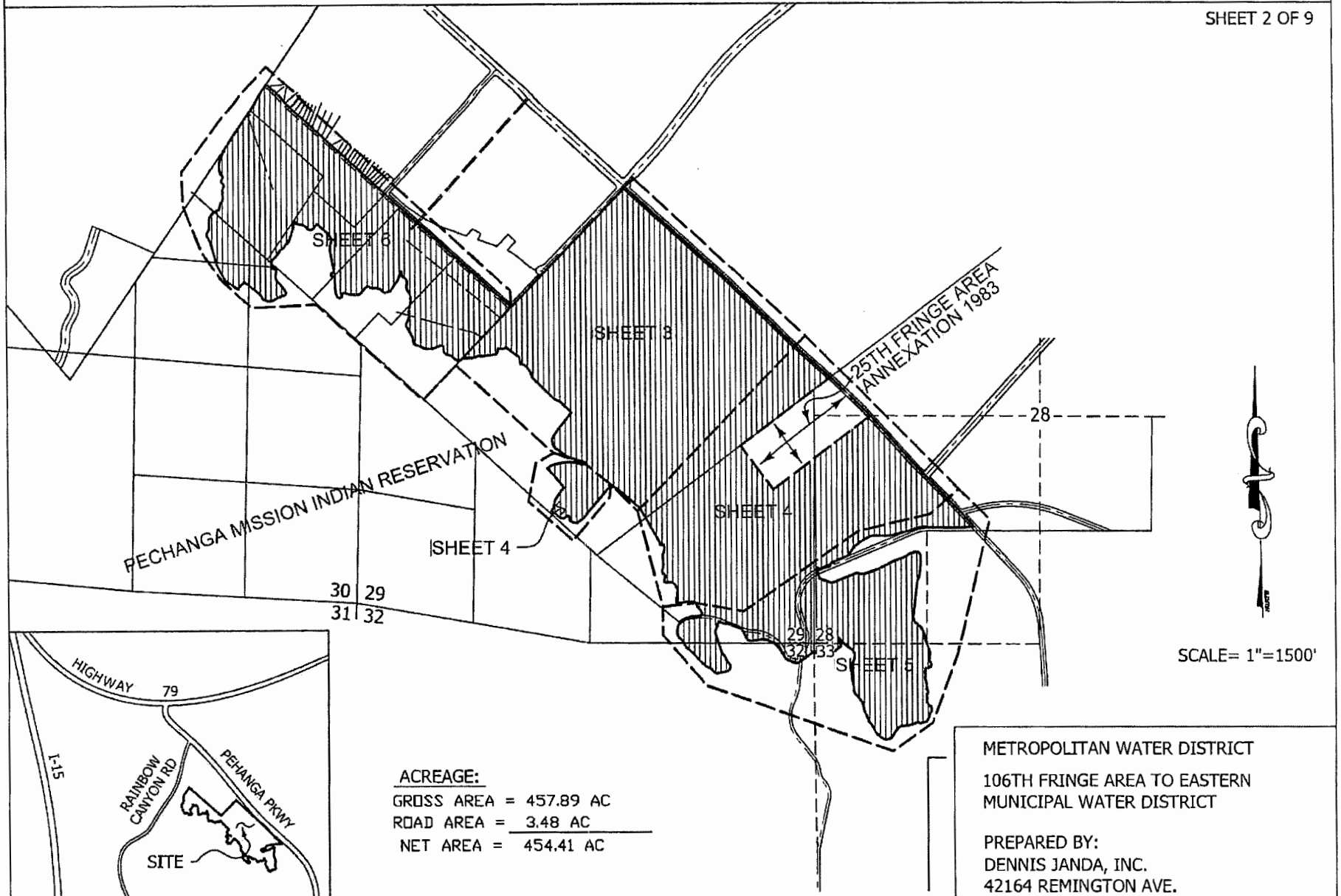
METROPOLITAN WATER DISTRICT

106TH FRINGE AREA TO EASTERN
MUNICIPAL WATER DISTRICT

PREPARED BY:
DENNIS JANDA, INC.
42164 REMINGTON AVE.
TEMECULA, CA 92590
951-699-8874

EXHIBIT

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ACREAGE:

GROSS AREA = 457.89 AC
ROAD AREA = 3.48 AC
NET AREA = 454.41 AC

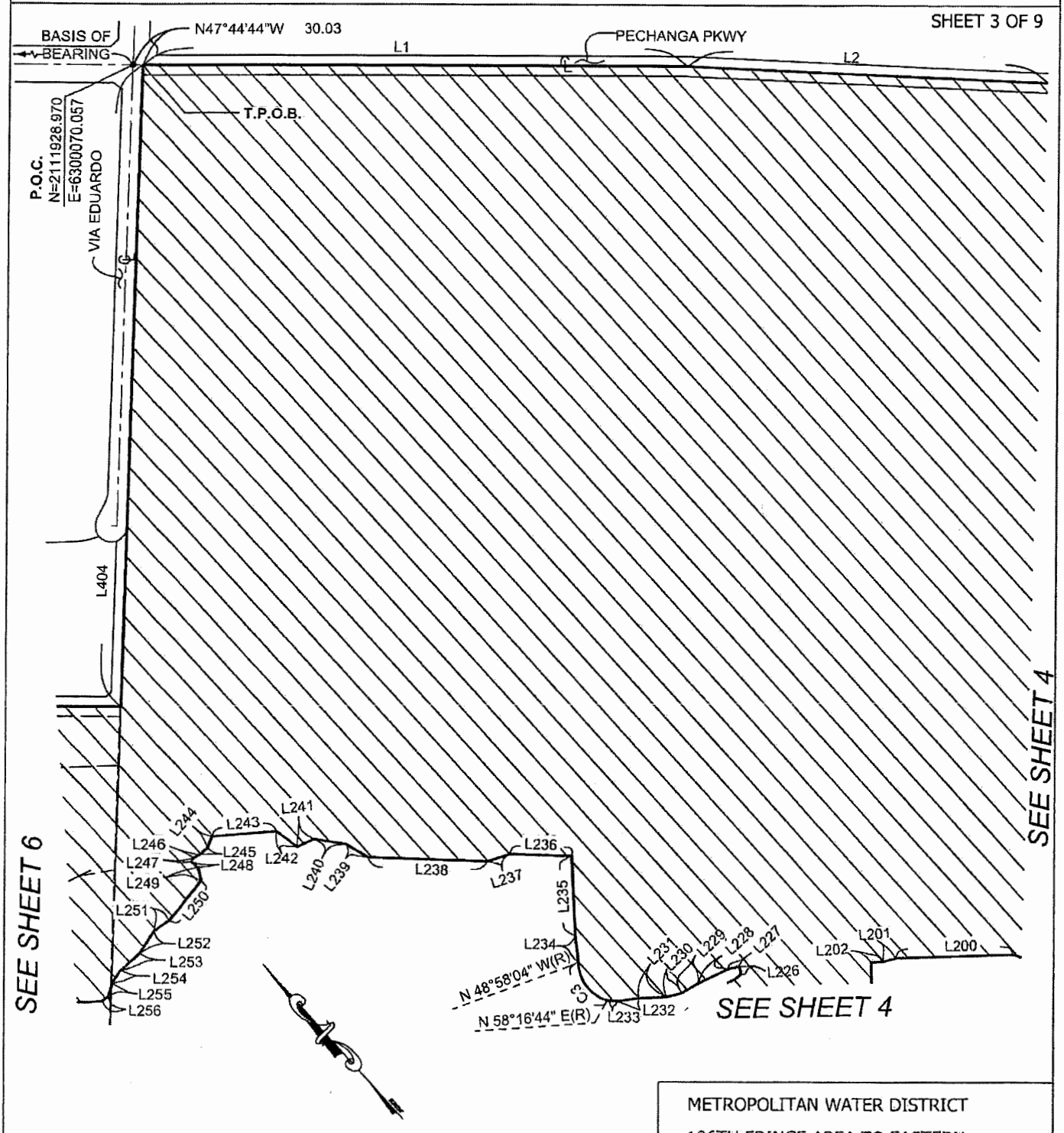
METROPOLITAN WATER DISTRICT

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METROPOLITAN WATER DISTRICT

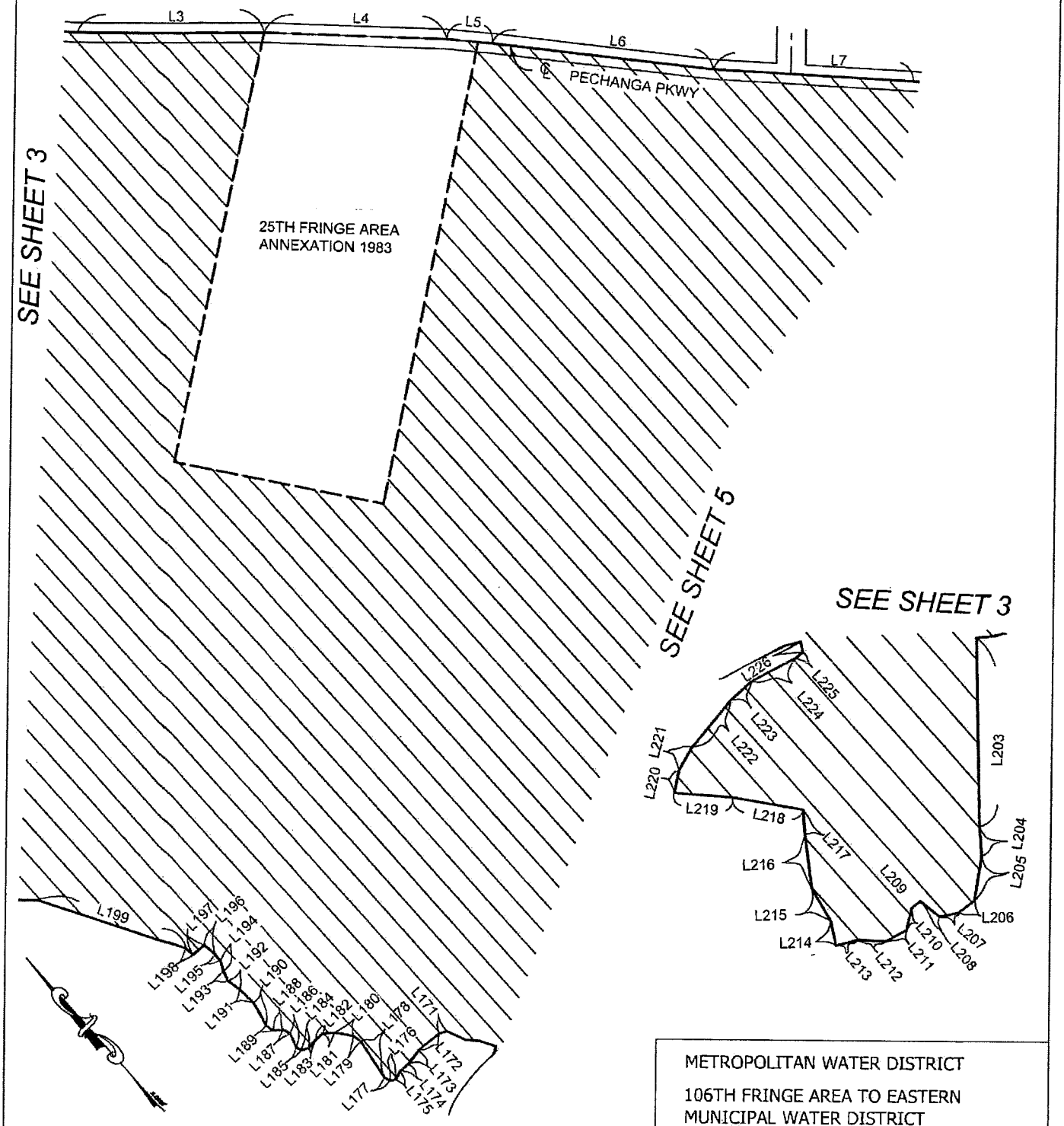
106TH FRINGE AREA TO EASTERN MUNICIPAL WATER DISTRICT

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951-699-8874

SCALE:1"=400'

EXHIBIT

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SCALE: 1" = 400'

METROPOLITAN WATER DISTRICT

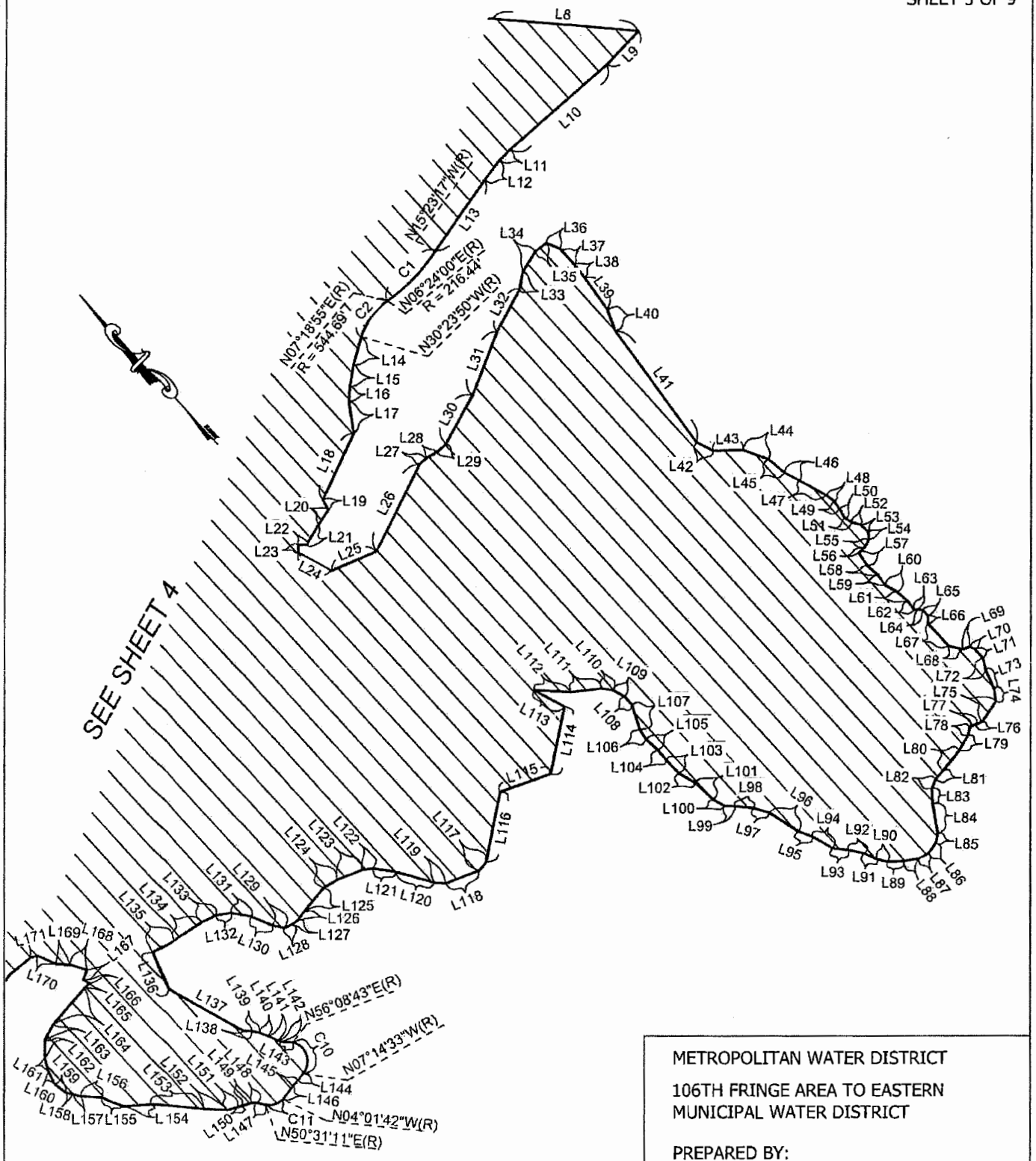
106TH FRINGE AREA TO EASTERN MUNICIPAL WATER DISTRICT

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SHEET 5 OF 9



SCALE: 1'=400'

METROPOLITAN WATER DISTRICT

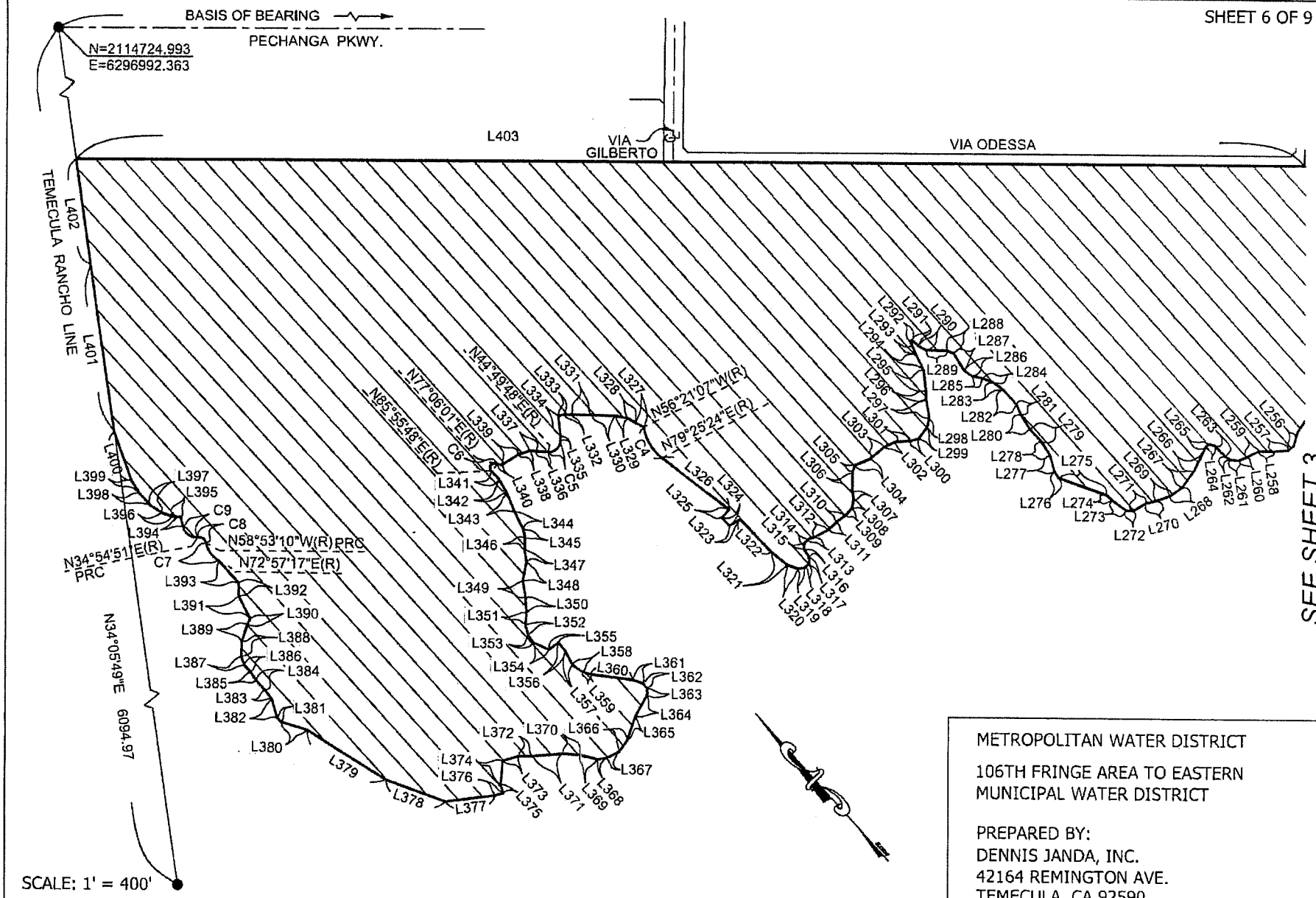
106TH FRINGE AREA TO EASTERN MUNICIPAL WATER DISTRICT

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SHEET 6 OF 9



METROPOLITAN WATER DISTRICT

106TH FRINGE AREA TO EASTERN MUNICIPAL WATER DISTRICT

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42164 REMINGTON AVE.
TEMECULA, CA 92590
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EXHIBIT

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LINE TABLE		
LINE	BEARING	LENGTH
L1	N47°44'44"W	1636.90'
L2	N45°15'08"W	1094.51'
L3	N48°07'47"W	556.12'
L4	N46°10'38"W	553.25'
L5	N42°45'22"W	138.15'
L6	N41°34'47"W	675.67'
L7	N44°49'05"W	609.18'
L8	N43°00'59"W	452.29'
L9	N85°00'58"E	141.07'
L10	N89°10'25"W	399.98'
L11	N86°38'11"E	45.33'
L12	N78°45'25"E	74.05'
L13	N76°55'49"E	267.72'
L14	N57°44'11"E	88.00'
L15	N51°16'39"E	70.23'
L16	N46°51'07"E	44.97'
L17	N33°18'45"E	100.23'
L18	N66°50'37"E	226.39'
L19	N13°43'29"E	35.75'
L20	N75°32'33"E	55.25'
L21	N73°00'27"E	71.78'
L22	N46°12'00"W	26.05'
L23	N42°28'04"E	26.20'
L24	N19°22'14"W	116.20'
L25	N71°04'44"W	151.55'
L26	N68°23'44"E	300.60'
L27	N90°00'00"W	26.28'
L28	N78°47'39"W	39.85'
L29	N88°53'57"W	35.05'
L30	N70°47'37"E	173.27'
L31	N62°58'03"E	209.49'
L32	N70°15'59"E	147.47'
L33	N52°23'37"E	57.70'
L34	N73°58'22"E	72.07'
L35	N83°09'46"W	43.60'
L36	N24°05'37"W	44.54'
L37	N00°14'20"W	64.84'
L38	N03°31'56"E	51.75'
L39	N06°42'02"E	122.62'
L40	N22°05'50"E	69.27'
L41	N06°08'19"E	427.84'
L42	N20°34'40"W	57.95'
L43	N49°34'44"W	91.24'
L44	N27°50'54"W	84.61'
L45	N07°11'23"W	65.17'
L46	N20°49'59"W	54.47'
L47	N19°17'24"W	94.74'
L48	N09°39'10"W	30.11'
L49	N07°12'19"E	28.35'
L50	N12°25'39"E	33.04'
L51	N16°42'45"W	24.73'
L52	N33°13'11"W	28.67'
L53	N03°30'49"W	32.52'
L54	N37°06'57"E	24.34'
L55	N69°34'59"E	25.79'
L56	N90°00'00"W	26.06'
L57	N09°01'53"E	47.89'
L58	N05°48'42"W	44.35'

LINE TABLE		
LINE	BEARING	LENGTH
L59	N06°02'23"E	37.79'
L60	N17°58'06"W	43.19'
L61	N07°08'13"W	45.59'
L62	N06°31'11"E	31.99'
L63	N57°40'18"W	10.63'
L64	N39°56'15"W	15.66'
L65	N01°14'44"W	25.10'
L66	N43°52'00"E	23.01'
L67	N00°36'18"W	96.60'
L68	N34°38'47"W	45.08'
L69	N69°52'45"W	22.41'
L70	N22°28'03"W	17.53'
L71	N00°27'28"E	38.48'
L72	N28°45'44"E	35.04'
L73	N18°57'05"E	67.21'
L74	N34°09'35"E	37.42'
L75	N75°58'15"E	76.98'
L76	N67°38'13"W	21.77'
L77	N75°24'16"W	19.56'
L78	N55°19'04"E	25.67'
L79	N72°46'19"E	54.16'
L80	N80°53'04"E	79.02'
L81	N83°46'02"E	35.28'
L82	N64°43'09"E	31.80'
L83	N38°57'19"E	46.68'
L84	N32°14'42"E	93.72'
L85	N54°12'42"E	30.23'
L86	N78°05'03"E	38.05'
L87	N75°19'32"W	36.23'
L88	N56°11'11"W	45.72'
L89	N49°50'58"W	51.44'
L90	N36°29'56"W	30.88'
L91	N22°24'37"W	44.30'
L92	N35°36'48"W	51.72'
L93	N41°51'50"W	49.01'
L94	N17°34'10"W	71.07'
L95	N27°43'58"W	45.87'
L96	N15°33'24"W	110.23'
L97	N31°03'01"W	48.14'
L98	N41°41'26"W	57.28'
L99	N45°01'08"W	35.52'
L100	N18°20'15"W	38.47'
L101	N04°44'50"W	74.02'
L102	N17°16'47"W	61.08'
L103	N01°25'41"W	55.92'
L104	N02°19'20"E	39.96'
L105	N05°59'52"W	49.86'
L106	N09°54'46"E	35.80'
L107	N24°47'42"E	79.41'
L108	N01°01'40"E	34.81'
L109	N17°48'35"W	43.05'
L110	N39°52'45"W	34.52'
L111	N54°20'30"W	95.49'
L112	N44°38'24"W	116.06'
L113	N19°26'35"W	108.20'
L114	N53°39'34"E	212.08'

LINE TABLE		
LINE	BEARING	LENGTH
L115	N67°11'51"W	165.97'
L116	N53°23'43"E	220.98'
L117	N81°51'52"E	34.43'
L118	N68°31'23"W	109.85'
L119	N43°44'07"W	33.55'
L120	N31°58'23"W	126.93'
L121	N39°41'47"W	67.89'
L122	N54°54'18"W	34.42'
L123	N69°25'20"W	83.47'
L124	N78°45'46"W	47.42'
L125	N81°45'48"E	98.33'
L126	N77°40'26"E	27.28'
L127	N85°12'31"W	24.99'
L128	N71°46'30"W	26.13'
L129	N35°04'18"W	36.75'
L130	N25°07'31"W	71.58'
L131	N37°27'16"W	59.68'
L132	N56°20'02"W	45.91'
L133	N73°57'13"W	49.18'
L134	N81°20'53"W	103.13'
L135	N79°13'41"W	68.82'
L136	N22°01'08"E	120.61'
L137	N18°20'45"W	264.69'
L138	N47°40'30"W	23.96'
L139	N35°02'27"W	24.26'
L140	N27°49'54"W	26.05'
L141	N22°14'22"W	35.98'
L142	N33°51'36"W	7.89'
L143	N43°51'51"W	37.95'
L144	N80°17'33"E	25.47'
L145	N81°49'32"E	24.03'
L146	N80°16'23"E	51.78'
L147	N35°07'15"W	30.40'
L148	N49°02'01"W	13.10'
L149	N66°33'10"W	31.38'
L150	N66°10'50"W	11.83'
L151	N63°55'01"W	30.89'
L152	N45°16'27"W	72.53'
L153	N42°35'39"W	158.13'
L154	N52°30'03"W	81.98'
L155	N28°39'00"W	36.92'
L156	N24°44'50"W	41.04'
L157	N44°45'56"W	63.32'
L158	N32°35'51"W	46.48'
L159	N09°06'29"W	41.85'

METROPOLITAN WATER DISTRICT

106TH FRINGE AREA TO EASTERN MUNICIPAL WATER DISTRICT

PREPARED BY:
DENNIS JANDA, INC.
42164 REMINGTON AVE.
TEMECULA, CA 92590
951-699-8874

EXHIBIT

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LINE TABLE		
LINE	BEARING	LENGTH
L160	N15°13'43"E	43.45'
L161	N28°11'15"E	43.63'
L162	N42°06'12"E	56.94'
L163	N71°05'10"E	50.76'
L164	N82°09'29"E	149.77'
L165	N88°56'08"W	20.09'
L166	N17°31'49"W	21.80'
L167	N61°08'03"E	32.12'
L168	N30°12'26"W	52.63'
L169	N43°42'37"W	43.99'
L170	N23°14'44"W	61.47'
L171	N62°47'35"W	22.20'
L172	N87°07'06"W	80.75'
L173	N79°00'42"E	53.19'
L174	N89°47'56"W	31.14'
L175	N72°48'20"E	30.78'
L176	N60°53'23"W	16.99'
L177	N16°32'43"W	19.52'
L178	N08°26'32"E	130.99'
L179	N12°47'58"W	26.92'
L180	N37°43'48"W	58.04'
L181	N53°10'42"W	34.27'
L182	N88°36'06"W	27.76'
L183	N80°45'20"E	33.96'
L184	N64°07'22"W	24.15'
L185	N16°18'00"W	17.76'
L186	N17°47'16"E	46.13'
L187	N22°15'40"W	23.29'
L188	N51°01'26"W	31.00'
L189	N11°27'14"W	24.60'
L190	N12°27'29"E	78.85'
L191	N04°01'19"W	57.00'
L192	N11°07'45"W	43.30'
L193	N16°03'23"E	33.49'
L194	N26°10'58"E	30.63'
L195	N03°00'06"E	27.38'
L196	N07°32'16"W	41.98'
L197	N89°45'01"W	44.89'
L198	N05°19'07"W	28.69'
L199	N29°54'59"W	467.72'
L200	N49°28'01"W	354.14'
L201	N63°03'10"W	39.70'
L202	N52°09'01"W	37.35'
L203	N40°38'20"E	430.71'
L204	N37°43'56"E	67.71'
L205	N50°53'07"E	101.53'
L206	N84°57'42"W	46.05'
L207	N60°20'51"W	44.51'
L208	N09°32'40"W	56.96'
L209	N86°56'10"W	25.22'
L210	N55°00'45"E	51.02'
L211	N77°20'26"W	52.88'
L212	N45°16'35"W	64.17'
L213	N63°03'38"W	52.04'
L214	N29°40'43"E	57.71'
L215	N11°21'28"E	85.36'
L216	N34°15'27"E	121.56'
L217	N37°31'43"E	58.68'

LINE TABLE		
LINE	BEARING	LENGTH
L218	N38°15'56"W	164.21'
L219	N44°05'38"W	132.74'
L220	N52°55'04"E	52.60'
L221	N71°31'10"E	60.47'
L222	N81°03'14"E	139.31'
L223	N89°14'53"E	62.57'
L224	N75°59'05"W	116.64'
L225	N87°01'42"W	19.20'
L226	N28°20'49"E	24.69'
L227	N62°21'34"W	34.07'
L228	N73°19'11"W	99.86'
L229	N78°30'40"W	57.91'
L230	N62°25'44"W	48.47'
L231	N50°29'14"W	82.29'
L232	N55°05'17"W	66.34'
L233	N43°43'29"W	31.03'
L234	N35°33'21"E	81.46'
L235	N39°13'31"E	240.88'
L236	N45°56'44"W	186.67'
L237	N65°48'16"W	72.06'
L238	N45°51'01"W	358.72'
L239	N17°02'39"W	77.53'
L240	N38°56'33"W	98.32'
L241	N73°39'23"W	55.12'
L242	N10°22'39"W	77.02'
L243	N52°36'14"W	193.94'
L244	N62°57'56"E	37.49'
L245	N89°49'17"W	31.81'
L246	N76°30'52"W	19.57'
L247	N75°30'58"E	13.84'
L248	N08°47'41"W	27.17'
L249	N28°05'13"E	40.42'
L250	N80°21'35"E	154.72'
L251	N85°07'52"W	52.26'
L252	N74°47'30"E	80.23'
L253	N89°47'52"E	77.08'
L254	N74°53'49"E	44.94'
L255	N57°47'55"E	42.54'
L256	N84°34'19"W	22.26'
L257	N52°23'00"W	44.89'
L258	N47°22'56"W	47.69'
L259	N73°26'11"W	44.65'
L260	N72°50'36"W	24.00'
L261	N42°43'50"W	24.56'
L262	N20°39'11"W	19.63'
L263	N02°45'28"W	52.03'
L264	N39°43'14"W	19.57'
L265	N82°35'59"E	9.92'
L266	N68°20'10"E	85.30'
L267	N77°58'34"E	63.48'
L268	N84°16'11"W	44.56'
L269	N66°39'50"W	46.70'
L270	N61°55'13"W	35.28'
L271	N78°10'42"W	46.00'
L272	N47°39'38"W	21.40'
L273	N11°32'30"W	53.57'
L274	N07°43'38"W	26.93'

LINE TABLE		
LINE	BEARING	LENGTH
L275	N28°52'55"W	157.01'
L276	N07°05'08"E	25.26'
L277	N27°06'33"E	53.07'
L278	N08°07'11"E	50.85'
L279	N00°05'27"W	54.09'
L280	N10°38'41"E	52.06'
L281	N17°12'50"E	35.07'
L282	N00°18'17"E	59.95'
L283	N11°35'10"W	37.42'
L284	N26°19'22"W	38.37'
L285	N36°37'53"W	31.77'
L286	N14°45'26"W	30.94'
L287	N09°47'40"E	64.49'
L288	N24°08'28"W	21.40'
L289	N46°46'00"W	64.88'
L290	N20°06'58"W	27.32'
L291	N07°36'08"W	28.45'
L292	N81°30'31"W	5.53'
L293	N19°02'14"E	47.28'
L294	N16°05'09"E	51.48'
L295	N35°28'03"E	66.35'
L296	N41°10'25"E	25.17'
L297	N32°23'01"E	61.64'
L298	N57°08'48"E	29.71'
L299	N79°26'45"E	44.48'
L300	N62°36'39"W	26.55'
L301	N51°48'20"W	48.81'
L302	N74°15'11"W	37.44'
L303	N87°39'05"W	56.83'
L304	N71°02'00"W	52.95'
L305	N57°46'31"E	23.70'
L306	N41°47'28"E	59.18'
L307	N34°56'19"E	24.97'
L308	N54°00'55"E	27.13'
L309	N83°21'03"E	30.93'
L310	N84°10'48"W	33.29'
L311	N88°19'16"E	38.19'
L312	N75°02'21"W	49.74'
L313	N67°21'35"W	21.39'
L314	N80°11'49"E	19.16'
L315	N36°14'51"E	16.35'
L316	N08°01'24"E	28.55'
L317	N45°11'22"E	22.52'
L318	N87°10'58"W	18.46'
L319	N54°27'38"W	21.08'

METROPOLITAN WATER DISTRICT

106TH FRINGE AREA TO EASTERN MUNICIPAL WATER DISTRICT

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LINE TABLE		
LINE	BEARING	LENGTH
L320	N29°05'56"W	33.34'
L321	N09°21'18"W	66.42'
L322	N01°24'30"W	140.84'
L323	N78°21'49"W	39.91'
L324	N00°40'45"W	35.11'
L325	N85°11'56"E	33.89'
L326	N10°37'17"W	266.22'
L327	N21°48'52"W	29.88'
L328	N16°18'30"W	26.35'
L329	N37°29'35"W	41.61'
L330	N46°08'36"W	74.38'
L331	N46°02'22"W	67.60'
L332	N50°37'35"W	20.11'
L333	N60°31'48"W	16.84'
L334	N35°55'32"E	62.62'
L335	N45°18'12"E	17.11'
L336	N44°33'39"W	39.19'
L337	N40°42'11"W	18.41'
L338	N66°44'23"W	39.74'
L339	N80°20'41"W	60.38'
L340	N38°25'27"W	14.75'
L341	N01°21'16"W	34.74'
L342	N11°58'52"E	55.48'
L343	N20°24'42"E	56.61'
L344	N15°56'36"E	63.36'
L345	N30°55'19"E	28.57'
L346	N44°33'26"E	34.63'
L347	N33°25'41"E	39.74'
L348	N53°25'18"E	59.15'
L349	N32°22'51"E	53.12'
L350	N38°45'16"E	48.46'
L351	N46°37'10"E	39.33'
L352	N26°26'45"E	32.80'
L353	N05°22'15"E	27.26'
L354	N22°40'20"W	53.57'
L355	N84°22'52"W	37.87'
L356	N02°42'58"E	33.86'
L357	N14°33'40"E	49.46'
L358	N11°38'35"W	37.87'
L359	N31°17'07"W	28.25'
L360	N40°57'47"W	131.06'
L361	N29°19'52"W	33.29'
L362	N01°38'36"W	20.46'
L363	N38°54'10"E	21.46'
L364	N71°10'34"E	77.44'
L365	N60°31'08"E	77.99'
L366	N77°56'00"E	44.87'
L367	N75°00'06"W	44.59'
L368	N56°12'31"W	28.67'
L369	N33°37'00"W	57.87'
L370	N44°22'23"W	53.06'
L371	N52°53'58"W	95.54'
L372	N47°55'14"W	43.57'
L373	N64°37'08"W	51.81'
L374	N46°36'45"E	77.43'
L375	N23°25'28"E	25.71'
L376	N65°13'25"W	25.39'
L377	N55°10'13"W	158.42'

LINE TABLE		
LINE	BEARING	LENGTH
L378	N27°57'45"W	198.72'
L379	N15°36'51"W	292.65'
L380	N30°58'41"W	83.20'
L381	N01°41'58"W	19.58'
L382	N26°25'09"E	60.09'
L383	N05°15'09"E	35.84'
L384	N01°34'28"W	38.85'
L385	N08°27'38"E	31.27'
L386	N00°01'30"E	30.52'
L387	N22°09'40"E	29.30'
L388	N44°50'31"E	46.20'
L389	N59°10'58"E	56.06'
L390	N68°05'06"E	21.60'
L391	N15°32'41"E	79.99'
L392	N41°12'35"E	39.80'
L393	N00°00'00"E	92.63'
L394	N27°55'24"E	32.90'
L395	N44°41'25"W	26.92'
L396	N28°17'16"W	33.56'
L397	N14°38'19"W	43.39'
L398	N00°49'38"W	51.39'
L399	N10°20'38"E	46.71'
L400	N22°39'34"E	162.07'
L401	N34°05'49"E	528.27'
L402	N34°05'49"E	333.06'
L403	N47°44'42"W	3857.78'
L404	N43°47'26"E	1943.65'

CURVE TABLE			
CURVE	DELTA	RADIUS	LENGTH
C1	22°42'12"	544.69'	215.83'
C2	36°47'50"	216.44'	139.00'
C3	72°45'13"	120.52'	153.04'
C4	44°13'29"	147.72'	114.02'
C5	89°31'37"	36.10'	56.41'
C6	171°10'13"	14.02'	41.88'
C7	48°09'33"	84.34'	70.89'
C8	86°11'59"	23.10'	34.75'
C9	83°00'33"	42.13'	61.04'
C10	116°36'44"	59.20'	120.49'
C11	54°32'53"	59.58'	56.72'

METROPOLITAN WATER DISTRICT

106TH FRINGE AREA TO EASTERN MUNICIPAL WATER DISTRICT

PREPARED BY:
DENNIS JANDA, INC.
42164 REMINGTON AVE.
TEMECULA, CA 92590
951-699-8874

FILED / POSTED
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder
E-201600206
02/24/2016 04:03 PM Fee: $ 50.00
Page 1 of 2
Removed By Deputy

Eastern Municipal Water District
2270 Trumble Road
P.O. Box 8300
Perris, CA 92572-8300

Notice of Exemption

To: Office of Planning and Research
1400 Tenth Street
P.O. Box 3044
Sacramento, CA 95812-3044

To: County Clerk
County of Riverside
27424 Gateway Drive
Riverside, CA 92502-0751

Project Information

Title: **Pechanga Band of Luiseño Mission Indians Extension of Existing Service Area**

Location: Bounded north by Pechanga Parkway; west by Rainbow Canyon Road; south and east by the Pechanga Golf Course. Township 8 South, Range 2 West, Sections 19, 28, 29, 30, 32, 33; SBB&M.

City: Temecula

County: Riverside

Description of Nature, Purpose, and Beneficiaries of Project:

The purpose of the Pechanga Band of Luiseño Mission Indians Extension of Existing Service Area (proposed project) is to provide imported water service through Eastern Municipal Water District (Eastern) and Metropolitan Water District of Southern California (Metropolitan), with physical delivery provided through Rancho California Water District (Rancho). Both Eastern and Metropolitan are working with the Pechanga Band of Luiseño Mission Indians (Pechanga) to extend imported water service to reservation land within Pechanga's commercial zone, which includes a casino, parking lot, gas station with mini mart, recreation vehicle area, and golf course. The gross acreage of the overall commercial zone is approximately 458 acres including public roads. The net area of the commercial zone, minus any deductions for public roads subject to further confirmation, is estimated to be approximately 452 acres. The actual acreage would be confirmed when the map and legal description are finalized.

The proposed project is an extension of existing service area and would use the existing infrastructure for water delivery. There would be no new infrastructure developed through this proposed project. Should there be a future need for new infrastructure to be developed the appropriate CEQA analysis would be required at that time, as a separate action, independent of this proposed project.

The proposed project follows Pechanga Parkway on the north and Rainbow Canyon Road on the west boundaries; and the perimeter of the Journey at Pechanga golf course on the south and east border (Map Attached). The area consists of portions of parcels purchased from private property owners by Pechanga which grandfathered the original Assessor's Parcel Numbers (APN). A complete APN list can be found attached.

The extension of service area, will allow for public utility service offered through Eastern, Metropolitan and Rancho to provide imported water service to Pechanga's commercial zone. By extending the existing service area and providing imported water service, the proposed project would allow Pechanga to maintain the health and safety of the people they serve.

Agency Approving and Carrying Out Project: Eastern Municipal Water District

Exempt Status: ☑ Categorical Exemption (Section 15301(b))

Exempt Status: ☑ Categorical Exemption (Section 15319(a))

Reasons why project is exempt: The proposed project is an extension of existing service area, using existing infrastructure/facilities, and no development is proposed through this action. As a result it would not have a substantial adverse effect on the environment. This project meets the criteria for Categorical Exemption provided for within CEQA Guidelines §15301 and §15319.

15301. Existing Facilities

Class I includes the operation of existing public or private structures or facilities involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. Examples include but are not limited to:

(b) Existing facilities of both investor and publicly owned utilities used to provide electric power, natural gas, sewerage, or other public utility services.

15319. Annexations of Existing Facilities and Lots for Exempt Facilities

Class 19 includes the following annexations:

(a) Annexations to a city or special district of areas containing existing public or private structures developed to the density allowed by the current zoning or pre-zoning of either the gaining or losing governmental agency whichever is more restrictive, provided, however, that the extension of the utility service to existing facilities would have a capacity to serve only the existing facilities.

EMWD Contact Person: Helen Stratton, CEQA/NEPA Analyst II **Phone:** (951) 928-3777, ext 4545

Jayne Joy, P.E.
Director of Environmental and Regulatory Compliance

3/24/2016
Date

Date Received for filing at OPR:



The Metropolitan Water District of Southern California
Engineering Services Group

Pechanga Proposed Extended Service Area
Surveyor's Boundary & APNs

No.	APN	Total Acres	ESA Acres
1	918-150-001	48.71	6.76
2	918-150-003	67.54	2.86
3	918-180-005	31.00	28.53
4	918-180-014	233.79	183.60
5	918-180-019	16.94	16.77
6	918-180-020	18.98	10.21
7	918-180-021	27.72	18.68
8	918-180-022	30.08	19.27
9	918-210-012	151.72	2.36
10	918-220-007	21.30	3.56
11	918-220-008	11.54	11.98
12	918-220-009	5.72	5.68
13	918-220-010	20.01	19.91
14	918-220-011	22.57	22.54
15	918-220-012	22.58	9.68
16	918-230-019	8.02	7.74
17	918-230-020	13.65	14.33
18	918-230-021	19.69	19.26
19	918-230-022	18.86	12.02
20	918-230-023	15.24	13.19
21	918-250-010	1.21	1.13
22	918-250-011	4.84	3.35
23	918-250-012	20.06	3.32
24	918-250-013	20.09	14.59
25	918-250-015	20.05	0.14

RESOLUTION 9207

RESOLUTION OF THE BOARD OF DIRECTORS OF
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
CONSENTING TO EASTERN MUNICIPAL WATER DISTRICT'S
106th FRINGE AREA ANNEXATION AND FIXING THE TERMS AND
CONDITIONS OF THE ANNEXATION TO
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

WHEREAS, the Board of Directors of the Eastern Municipal Water District ("Eastern"), a municipal water district, situated in the county of Riverside, state of California, pursuant to Resolution No. 2016-033 in accordance with the provisions of the Metropolitan Water District Act (MWD Act), has applied to the Board of Directors of The Metropolitan Water District of Southern California (Metropolitan) for consent to annex thereto certain territory situated in the county of Riverside referred to as the 106th Fringe Area, more particularly described in an application to the Riverside County Local Agency Formation Commission (LAFCO), concurrently with the annexation thereof to Eastern, such annexation to Metropolitan to be upon such terms and conditions as may be fixed by the Board of Directors of Metropolitan;

WHEREAS, the beneficial owner of the territory identified as a portion of the reservation lands of the Pechanga Band of Luiseño Mission Indians (Pechanga) and described in the Extension of Service Area Agreement (ESAA) (Property) has applied for inclusion into Eastern and Metropolitan;

WHEREAS, completion of said annexation shall be contingent upon approval by the LAFCO;

WHEREAS, in recognition of the inherent sovereignty of Pechanga as a tribal government, no ad valorem property taxes or property-related assessments shall be imposed on the Property, and instead, Pechanga will pay present value charges equivalent to taxes or assessments that otherwise would be levied;

WHEREAS, completion of said annexation shall be further contingent upon LAFCO conditioning its approval of the 106th Fringe Area upon a requirement that a charge for the present value of Metropolitan's existing and established taxes, benefit assessments, or property-related fees or charges in place in the service area, as identified below, are paid on the territory being annexed to the agency;

WHEREAS, Metropolitan has levied and collected ad valorem taxes on parcels within the territory of Eastern. Such charges for calendar year 2016 are described in Resolution 9195, adopted by Metropolitan's Board on August 18, 2015;

WHEREAS, since fiscal year 1992-93, Metropolitan has levied and collected water standby charges pursuant to Section 134.5 of the MWD Act on parcels within the territory of Eastern. Such charges for fiscal year 2015-16 are described in Resolution 9191, adopted by Metropolitan's Board on May 12, 2015;

WHEREAS, upon annexation, the territory will be within Metropolitan's service area, Metropolitan's water will be available to such territory and such area will receive the benefit of the projects provided in part with proceeds of Metropolitan ad valorem taxes and water standby charges;

WHEREAS, as a requirement of this annexation and pursuant to the ESAA, the Pechanga will pay Metropolitan $2,896,442, which includes Metropolitan's per-acre annexation fee, a $5,000 processing fee, and $562,591 that represents the present value of the ad valorem taxes that otherwise would be levied;

WHEREAS, as a requirement of this annexation and pursuant to the ESAA, the Pechanga will pay Eastern $62,782.02, which represents the present value of the standby charges that otherwise would be levied, which will be used to offset the Readiness to Service Charges Eastern will owe Metropolitan for service to the Property.

WHEREAS, pursuant to the provisions of the California Environmental Quality Act (CEQA), Eastern determined that this proposed annexation was categorically exempt on February 24, 2016, and Metropolitan finds that this land contains existing private structures and that the extension of utility services to the existing facilities would have a capacity to serve only the existing facilities. This extension of service also involves land of the minimum size for facilities exempted by Section 15303 in the State CEQA Guidelines. In addition, the overall activities associated with the extension of service process consists of the operation, repair, maintenance, permitting, leasing, licensing or minor alteration of the existing private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of this determination. Accordingly, the proposed action qualifies under two Categorical Exemptions (Sections 15301 and 15319 of the State CEQA Guidelines).; and

WHEREAS, it appears to this Board of Directors that such application should be granted, subject to the terms and conditions hereinafter set forth.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of Metropolitan, acting as Responsible Agency, has reviewed and considered Eastern's request for extension of service in the 106th Fringe Area, and determined that the proposed action qualifies under two Categorical Exemptions (Class 1, Section 15301 and Class 19, Section 15319 of the State CEQA Guidelines) prior to approval of the final terms and conditions for extending the service for the 106th Fringe Area; and subject to the following terms and conditions and the terms of the ESAA, does hereby grant the application of the governing body of Eastern for consent to annex the 106th Fringe Area to Metropolitan and does hereby fix the terms and conditions;

Section 1. The annexation of said area to Eastern shall be made concurrently with the service area annexation thereof to Metropolitan, and all necessary certificates, statements, maps, and other documents required to be filed by or on behalf of Eastern to effectuate the action shall be filed on or before December 31, 2018.

Section 2. Prior to filing a request for a Certificate of Completion of the proceedings with LAFCO, Eastern shall submit a certified copy of LAFCO's resolution approving the service area annexation to the Member Agency, and Pechanga shall pay to Metropolitan $2,896,442 for its annexation fee, if the annexation is completed by December 31, 2016. If the annexation is completed during the 2017 or 2018 calendar year, the annexation charge will be calculated based on the then-current rate, in accordance with Metropolitan's Administrative Code Section 3300.

Section 3. a. Metropolitan shall be under no obligation to provide, construct, operate, or maintain feeder pipelines, structures, connections, and other facilities required for the delivery of water to said area from works owned and operated by Metropolitan.

b. Eastern shall not be entitled to demand that Metropolitan deliver water to Eastern for use, directly or indirectly, within said area, except for domestic or municipal use therein.

c. The delivery of all water by Metropolitan, regardless of the nature and time of use of such water shall be subject to the water service regulations, including rates and charges promulgated from time to time by Metropolitan.

d. Except upon the terms and conditions specifically approved by the Board of Directors of Metropolitan and in the ESAA, water sold and delivered by Metropolitan shall not be used in any manner which intentionally or avoidably results in the direct or indirect benefit of areas outside Metropolitan, including use of such water outside Metropolitan or use thereof within Metropolitan in substitution for other water outside Metropolitan.

Section 4. LAFCO has conditioned approval of the annexation upon a requirement that Pechanga pay a charge equal to the present value of future payments for all previously established and collected taxes, benefit assessments, or property-related fees or charges on territory being annexed to the agency.

Section 5. That the Board of Directors of Metropolitan, acting as a Responsible Agency, has reviewed and considered Eastern's request for extension of service in the 106th Fringe Area, and determined that the proposed action qualifies under two Categorical Exemptions (Class 1, Section 15301 and Class 19, Section 15319 of the State CEQA Guidelines) prior to approval of the final terms and conditions for extending the service area for the 106th Fringe Area; and subject to the following terms and conditions, does hereby grant the application of the governing body of Eastern for consent to extend service to the 106th Fringe Area to Metropolitan and does hereby fix the terms and conditions.

Section 6. That the General Manager and General Counsel are hereby authorized to do all things necessary and desirable to accomplish the purposes of this resolution, including, without limitation, the commencement of defense of litigation.

Section 7. That if any provision of this resolution or the application to any member agency, property or person whatsoever is held invalid, that invalidity shall not affect the other provisions or applications of this resolution which can be given effect without the invalid portion or application, and to that end the provisions of this resolution are severable.

BE IT FURTHER RESOLVED that the Board Executive Secretary is directed to transmit forthwith to the governing body of Eastern a certified copy of this resolution.

I HEREBY CERTIFY that the foregoing is a full, true and correct copy of a resolution adopted by the Board of Directors of The Metropolitan Water District of Southern California, at its meeting held on April 12, 2016.

Secretary of the Board of Directors
of The Metropolitan Water District
of Southern California

Exhibit F-5

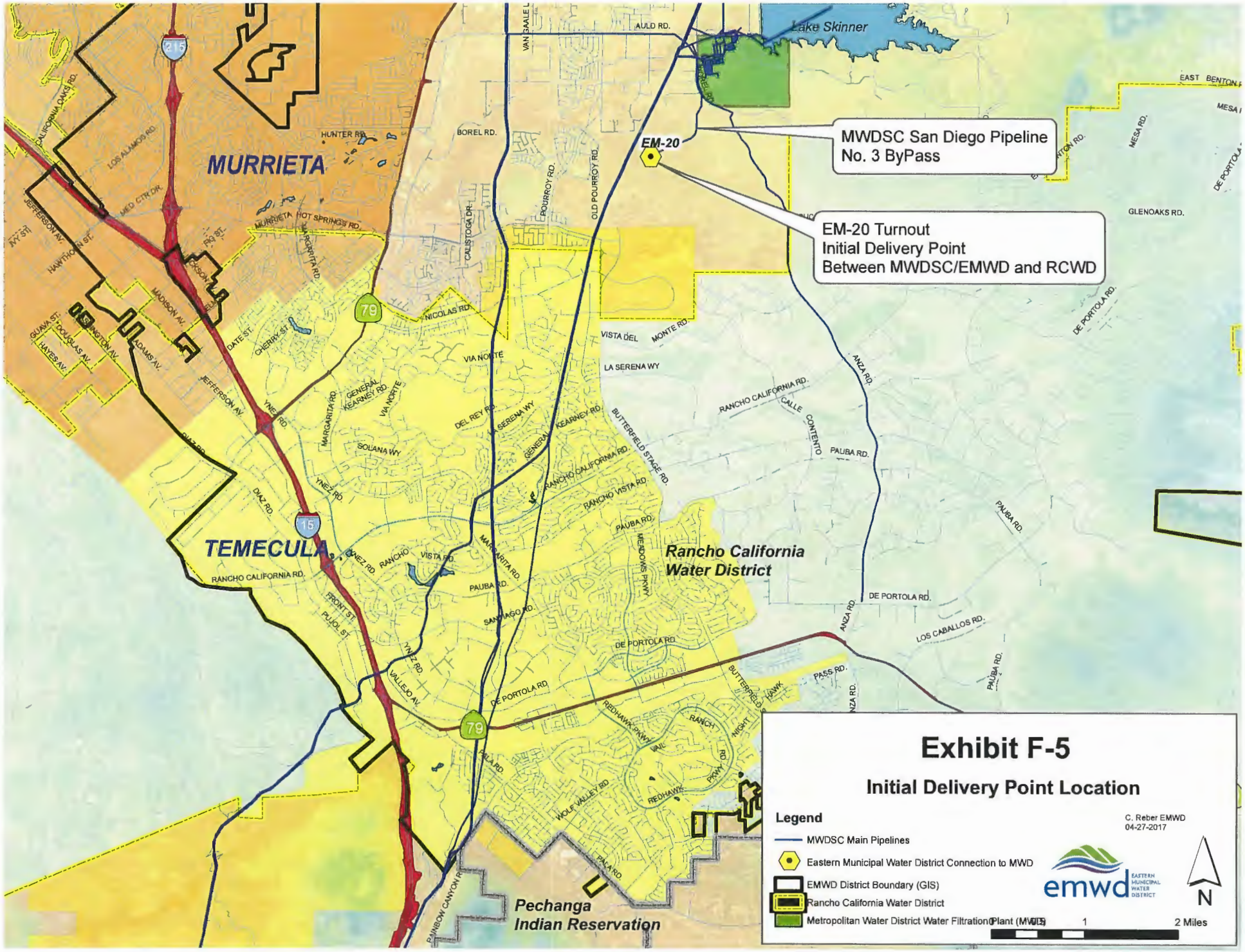

MWDSC San Diego Pipeline
No. 3 ByPass
EM-20
EM-20 Turnout
Initial Delivery Point
Between MWDSC/EMWD and RCWD
Lake Skinner
MURRIETA
TEMECULA
Rancho California
Water District
Pechanga
Indian Reservation
AULD RD.
BOREL RD.
HUNTER RD.
MURRIETA HOT SPRINGS RD.
NICOLAS RD.
VISTA DEL MONTE RD.
LA SERENA WY
VIA NORTE
DEL REY RD.
SOLANA WY
RANCHO CALIFORNIA RD.
PAUBA RD.
DE PORTOLA RD.
GLENOAKS RD.
MESA RD.
LOS CABALLOS RD.
PASS RD.
REDHAWK PKWY
WOLF VALLEY RD.
PALA RD.
RAINBOW CANYON RD.
Exhibit F-5
Initial Delivery Point Location
Legend
MWDSC Main Pipelines
Eastern Municipal Water District Connection to MWD
EMWD District Boundary (GIS)
Rancho California Water District
Metropolitan Water District Water Filtration Plant (MWD)
C. Reber EMWD
04-27-2017
emwd
EASTERN MUNICIPAL WATER DISTRICT
N
0
1
2 Miles

Exhibit F-6

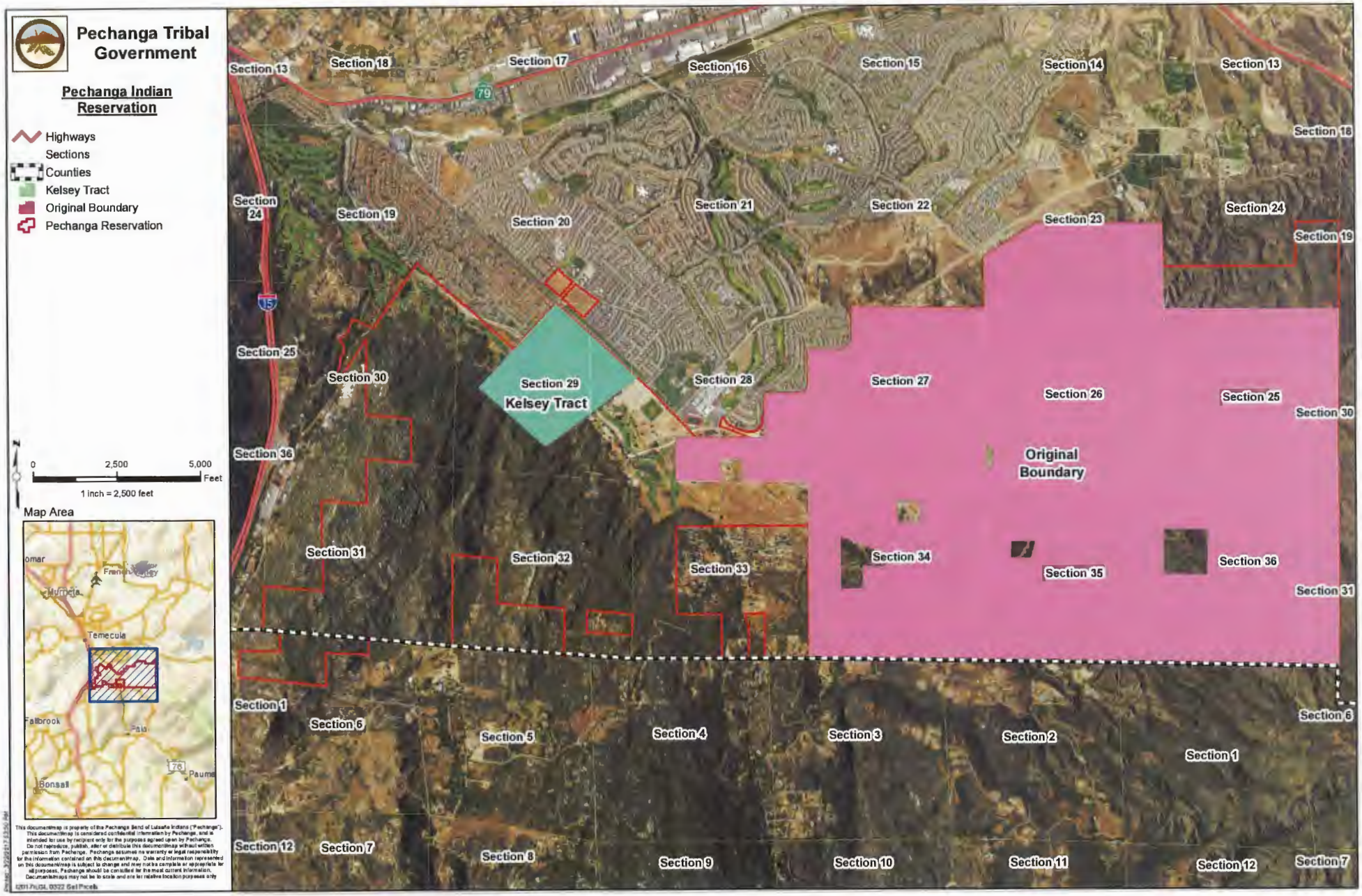

Pechanga Tribal Government
Pechanga Indian Reservation
Highways
Sections
Counties
Kelsey Tract
Original Boundary
Pechanga Reservation
0
2,500
5,000
Feet
1 inch = 2,500 feet
Map Area
Section 13
Section 18
Section 17
Section 16
Section 15
Section 14
Section 13
Section 18
Section 24
Section 19
Section 20
Section 21
Section 22
Section 23
Section 24
Section 19
Section 25
Section 30
Section 29
Kelsey Tract
Section 28
Section 27
Section 26
Section 25
Section 30
Section 36
Original Boundary
Section 31
Section 32
Section 33
Section 34
Section 35
Section 36
Section 31
Section 1
Section 6
Section 5
Section 4
Section 3
Section 2
Section 1
Section 6
Section 12
Section 7
Section 8
Section 9
Section 10
Section 11
Section 12
Section 7
Temecula
Fallbrook
Bonsall
Pala
Paums
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Exhibit F-7

Documentation for Annexation of Lands to The Metropolitan Water District of Southern California Water Use Efficiency Compliance Statement

A. General Information

Description of Annexing Area	Member Agency: Eastern Municipal Water District Annexation Name: 106th Fringe Area (Pechanga Band of Luiseño Mission Indians) Annexing Water Demand: 0 GPD Peaking Water Demand: 0 GPD Percent MWD Supplied: No additional water is anticipated at this time nor over the next 6 years. Development Plans: The subject property is located southwest of Pechanga Parkway, and primarily south of the intersection of Pechanga Parkway and Wolf Valley Road within Riverside County. Total annexation consists of approximately 458 acres with a casino, hotel, restaurants and golf course (Resort) occupying a majority of the acreage. While the proposed property to be annexed is primarily developed, the Resort is currently in process of expansion but no further development, expansion plans or additional water needs are contemplated at this time. The Pechanga Band of Luiseño Mission Indians (Pechanga) have existing agreements for potable and recycled water delivery as well as existing groundwater production thus, current local water supplies adequately meet current demands. The Recycled Water Agreement between Eastern Municipal Water District and Pechanga provides up to 1,000 acre-feet of recycled water per year through December 31, 2057 with two additional 20 year periods available for renewal. Metropolitan Water District, Eastern Municipal Water District and the Pechanga Band of Luiseño Mission Indians (Pechanga) have agreed, in concept, to the Extension of Service Area Agreement which is an integral part of the Pechanga Water Rights Settlement Act (Act). The Act is a settlement of claims to water rights and certain claims for injuries to water rights in the Santa Margarita River Watershed. Pechanga may, in the future, which is considered to be no less than 6 years after this document is approved by MWD's Board of Directors, decide to request additional water per the ESAA. Zoning: Resort and Recreation Additional Water Agencies Involved in Annexation: 1. N/A 2. 3.

B. Member Agency Water Use and Efficiency Plans

1. Does your agency minimize annual water demand by incorporating water conservation measures into new development plans and service agreements? Describe service area wide actions.	Member Agency Response: Yes☑ No☐ Description: In mid-2015, EMWD adopted new development standards to further promote conservation throughout its service area. Beginning in July 2015, all new developments are prohibited from having non-functional turf, including turf in the front yards of new homes. With more than 60 percent of water in EMWD's service area being used outdoors, this was designed to be a long-term strategy to minimize the impact of new development. EMWD's service area is currently 40 percent built out, making it one of the few regions in Southern California that will see significant population growth in the coming decades. EMWD also helped the County of Riverside adopt a similar ordinance prohibiting turf in the front yards of new homes in all unincorporated areas of Riverside County. EMWD has also prohibited the installation of non-functional turf in all new Commercial, Industrial, and Institutional (CII) developments. While turf is being allowed in functional areas of new development, including parks and schools, it is no longer permitted within common area landscaping that provides no functional community benefit. Non-functional turf can best be described as turf that is only ever walked in when it is being mowed. EMWD performs its Water Supply Assessments based on the General Plans of the cities and County that it serves. If developers exceed the demands outlined in those General Plans – such as through an increase in density – they are required to help fund conservation programs that will further reduce potable water demand in other portions of the service areas. All new development is also required to go through a Recycled Water Candidacy Review, which will determine the feasibility of recycled water use for irrigation purposes. Many times, if a development is within one mile of an existing recycled water pipeline, the developer will be required to extend the existing facilities to provide recycled water to areas such common area landscape, parks and schools. EMWD currently uses 100 percent of its recycled water for beneficial reuse and recycled water accounts for 35 percent of its overall water supply portfolio. As further development takes place, increasing wastewater flows, there will be a volumetric increase in available recycled water that will be put to use to meet the growing demands of our community. EMWD is responsible for conserving the available water supply, protecting the integrity of water supply facilities, and implementing a contingency plan in times of drought, supply reductions, failure of water distribution systems, or emergencies. Therefore, EMWD adopted the Water Shortage Contingency Plan (WSCP) to regulate the delivery and consumption of water use during water shortages. Supporting Documentation: Link to EMWD's Administrative Code and WSCP: http://www.emwd.org/home/showdocument?id=6000
2. Does your service area maximize use of groundwater, surface water, and recycling to reduce annual demand on MWD? Describe service area wide actions. Administrative Code § 3107 (a)	Member Agency Response: Yes☑ No☐ Description: Yes, EMWD produces about 17% of its supplies from local groundwater. Other sources of water include recycled water produced from four regional water reclamation facilities, two reverse osmosis desalination plants, two microfiltration plants, and a groundwater recharge operation. Plans are underway for one additional desalination plant and expanding our groundwater recharge program. In addition, in response to the State Water Resources Control Board's mandate for reduction in per capita use of potable water, EMWD, among other initiatives, is pursuing additional recycled water use that offsets existing potable demand. The Recycled Water Accelerated Retrofit Program is designed to advance recycled water retrofit projects to achieve approximately 410 acre-feet per year of potable water. The Program incorporates streamlined business processes, technical support, and financial incentives to expedite the permitting, design, and construction of retrofit sites. Public agencies, schools, parks, and cities are targeted retrofit customers and an underlying objective is to offset potable water use while focusing on maintaining functional turf for public benefit. Supporting Documentation: Brochure - Maximizing Resources Brochure - Salinity Management Program Administrative Code Article 6, Recycled Water Use Groundwater Management Plan

3. Does your service area use storage and groundwater facilities and conservation to minimize peak demand on MWD? Describe service area wide actions.	Member Agency Response: Yes☑ No☐ Description: Yes, EMWD utilizes its storage facilities and groundwater basins to reduce peak demand on MWD. EMWD maintains 80 water reservoirs that hold more than 190 million gallons of water and 21 wells that produce 18,800 AFY. All of the aforementioned facilities help EMWD reduce its reliance on MWD during critical peak demand. EMWD forecasts demand and adjusts tank levels accordingly. If the District anticipates significant system demand the tanks will be filled in excess of standard levels. EMWD also accomplishes reduced pumping during peak hours to utilize storage and conserve energy. EMWD also has a groundwater recharge program consisting of spreading ponds in the Hemet/San Jacinto area that are used to store excess water during wet periods. This program has been expanded with the construction of a major raw water transmission pipeline that made State Water Project available to recharge the sub-basin. A Water harvesting project has been constructed using an old MWD reservoir to capture water from Riverside County Flood Control and the Water Conservation District storm drains. Peak demands on MWD are further reduced by on-going conservation measures in place due to the drought. In 2015, the maximum monthly demand was 8,227 AF, which occurred in August. The maximum monthly demand in 2013 was 10,093 AF, which occurred in July. The reduction in maximum monthly demand from 2013 to 2015 was just over 18%. Outdoor water conservation is promoted throughout our service area. Programs such as weather-based controllers for residential and commercial landscape accounts; the nozzle replacement program, and landscape restrictions as outlined in the Administrative Code Article 6 are all examples of outdoor water conservation programs supported by EMWD. EMWD moved into Stage 4c of the WSCP effective January 6, 2016: Mandatory Outdoor Reduction and has implemented the following water restrictions: • Mandatory reduction of outdoor water use enforced through changes to EMWD's water-budget based tiered rate structure and observation-based penalties will be increased for violations of the water use efficiency requirements • Watering or irrigating of lawn, landscape, or other vegetated areas with sprinklers should be limited to the following schedule: June through August – a maximum of two days a week, September through May – a maximum of one day a week • Changes to the tiered rate structure was set according to the following level: Stage 4c: Tier 2 (Outdoor Use) water budgets will be decreased up to 100 percent - EMWD is currently in this stage. Water budgets have been reduced 70 percent • All water used in excess of water budget will be charged at the highest "Wasteful" (Tier 4) water use rate • CII customers are not allowed to water non-functional turf • EMWD will issue a warning letter for all reported violations. Subsequent violations will result in fines which start at $50 for residential customers and $200 for commercial properties Supporting Documentation: Link to EMWD's Administrative Code and WSCP: http://www.emwd.org/home/showdocument?id=6000 Brochure - Hemet / San Jacinto Conjunctive Use Program Report - Active Production Wells Report - Active Tank List
Administrative Code § 3107 (b)	

4. Does your agency offer all MWD new development conservation programs? Describe how they are promoted. Administrative Code § 3107 (b)	Member Agency Response: Yes☑ No☐ Description: Yes, EMWD's new development conservation programs, including residential water surveys, water-wise landscape/irrigation workshops, high efficiency washing machine rebates, moisture sensors, CII program, etc are offered to all of our customers including new development. For many rebates EMWD has added funding to encourage additional participation. As outlined in the Conservation Department Programs pamphlet, these programs are offered to all new customers as well as subagencies. These are promoted via bill stuffers, EMWD's web site, newspaper articles and advertisements, and community outreach meetings such as Chambers of Commerce events, homeowners association meetings and civic associations, etc. Subagencies are able to participate in MWD rebates through the region wide program. Supporting Documentation: CII Regional Rebate Program Agreement No. 66644 Residential Region wide Rebate Program Agreement 70031 Monthly Customer Newsletters Conservation Promotional Flyers
5. Does your agency have a specific conservation program for new development independent of MWD funding? Describe. Administrative Code § 3107 (b)	Member Agency Response: Yes☑ No☐ Description: Yes, Article 6 in EMWD's Administrative Codes require new landscaping is designed with a water budget of 50% evapotranspiration. Budgets are enforced for single-family, multi-family, and landscape accounts utilizing the domestic water system through a budget based tiered rate. EMWD ordinance 72.25 requires that prior to the issuance of a meter, the customer shall calculate a water budget for each landscape area; and then the water budget and the factors used to calculate the budget will be submitted to EMWD for review. For the new meter to be issued, the calculated water budget for the landscape area cannot exceed the maximum budget limits calculated by EMWD. Whether a single lot or a part of a subdivision, before issuing a meter EMWD must verify the landscape installed in new development meets the landscape efficiency standard set by Ordinance 72.25. The Landscape water budget worksheet can be used to provide the required information to EMWD and can be used for one lot or a series of lots and must be reviewed by conservation before a meter is released. EMWD will also accept a copy of the Landscape Documentation Package or similar submittal with the required information included. This information must be reviewed and approved by EMWD conservation staff prior to meters being released. EMWD is the first water agency in Riverside County to offer the Qualified Water Efficient Landscaper (QWEL) professional certification program which provides landscape professionals with 24 hours of education on principles of proper plant selection for the local climate, irrigation system design and maintenance, and irrigation system programming and operation. In order to obtain the QWEL certification an individual must demonstrate their ability to perform an irrigation system audit as well as pass the QWEL exam. EMWD has initiated a long term campaign to encourage all customers to use water wisely. EMWD sponsors workshops on California-friendly plants to promote landscaping using drought tolerant plants and the Water Waste Program to report/correct the wasteful use of water. The New Residential Development Campaign is targeted at new residential customers and consists of a welcome letter, a quarterly newsletter containing seasonal tips and ideas for water conservation, and a survey. EMWD enforces local and state landscape ordinances through the use of budgets based tiered rates. Effective September of 2008 new customers have a lower water budget than existing customers. Supporting Documentation: Link to EMWD's Administrative Code and WSCP: http://www.emwd.org/home/showdocument?id=6000 Brochures - WUIW Water Efficient Landscape Workshop Water Waste Program - Sample Letter New Residential Development Campaign – Letter and Brochures

6. Does your service area use recycled water in accordance with California Water Code Sections 13550 - 13557? Describe service area wide actions. Administrative Code § 3107 (c)	Member Agency Response: Yes☑ No☐ Description: Yes. EMWD has an extensive recycled water distribution system consisting of more than 170 miles of pipeline linking five regional water reclamation facilities. More than 6,000 AF of storage pond capacity have been constructed at ten locations throughout our service area for seasonal storage of surplus recycled water. About 34,500 AFY of recycled water is sold to customers at 110 different sites, ranking EMWD among the top water recycling agencies in California. Recycled water is conditioned for new projects serviced by EMWD that meet the Recycled Water Facilities and Service Guidelines adopted by EMWD's Board of Directors as required in Water Code sections 13550-13557 Supporting Documentation: Brochure - EMWD Recycling Program Recycled Water Policy & Guidelines Report - Recycled Water Production & Sales
7. Are Best Management Practices conditioned on all new development? Describe BMP implementation. Describe BMP implementation in new development. Administrative Code § 3107 (d)	Member Agency Response: Yes☑ No☐ Description: Yes. In fulfillment of the BMP's, all of the incentives/rebates are offered to new development within our service area. As a condition of service, new development must agree to meet all code requirements established by their respective City or County, as applicable. Each of these agencies has stringent landscape codes. Large commercial landscaping requires a dedicated landscape irrigation meter, submittal of plans for approval, and an approved water budget enforced through a budget based tiered rate. EMWD also requires new homes to install water efficient landscaping in accordance with the State Model ordinance enforced through a budget based tiered rate. EMWD is a leading member of the Riverside County Water Task Force whose purpose is to promote water use best management practices for cities and other entities throughout Riverside County. Supporting Documentation: County of Riverside Landscape Requirements Riverside County Water Task Force Program

8. Can your agency sustain a 7-day interruption in service as described in MWD Admin. Code Section 4503? Administrative Code § 3107 (e)	Member Agency Response: Yes☑ No☐ EMWD would be able to sustain a 7-day interruption in service as described in MWD's Administrative Code Section 4503. EMWD has a diverse portfolio of water supplies including 5 active connections to MWD system. Depending on their location, these connections are either supplied by the SPW or CRW. Additionally, EMWD has over 190 MG of elevated storage, 21 active wells, two Microfiltration and two brackish water desalters. Shutdowns in excess of 2 days during the peak demand months would require additional conservation efforts.
9. Are your agency and all other agencies listed in (A) above signatory to the California Urban Water Conservation Council's BMP MOU? Administrative Code § 3107 (f)	Member Agency Response: Yes☑ No☐ Form of Documentation: Yes. EMWD is signatory to CUWCC BMP's Form of Documentation: February 5, 1992 Board Letter – Approving Signatory to the CUWCC MOU
10. Has your agency and all other agencies listed in (A) submitted a report to CUWCC? Administrative Code § 3107 (f)	Member Agency Response: Yes☑ No☐ Form of Documentation: EMWD Year 2012/2013 BMP Reports AB 1420 Compliance Documentation and supporting information. 2010 UWMP Section 8

11. Are your agency and all other agencies listed in (A) above in compliance with the California Urban Water Conservation Council's MOU? Administrative Code § 3107 (f)	Member Agency Response: Yes☑ No☐ Form of Documentation: Yes. EMWD submitted a report to CUWCC in February 2016 for the 2013/2014 and 2014/2015 fiscal years. EMWD is at 100% compliance. The supporting documentation for 1420 compliance and the 2010 UWMP provide equivalent information to the CUWCC reports. EMWD is also in compliance with the 20x2020 regulation. EMWD's baseline usage was calculated at 196 gallons per capita-day (GPCD). In 2015, EMWD was at 130 GPCD, a reduction of 34%.

MWD

MWD Employee Name:
Ethel Young

File Date:
4/12/2016

MWD Employee Name:
Ellen Mackey

Review Date:
3/17/2016

Notes:

MWD Member Agency

The following member agency assures compliance with the provisions of Metropolitan's Water-Use Efficiency Guidelines for the next six years as indicated in Metropolitan's Administrative Code § 3107 and shall report to Metropolitan regarding such compliance.

Agency Name:
Eastern Municipal Water District

Date:

Typing your name on this form will have the same effect as a hard-copy or original signature.

Agency Representative Name:
Paul D. Jones II, P.E., General Manager

Notes:

Division III

ANNEXATIONS

Chapter		Sec.
1	Annexation Procedure	3100
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3	Financial Policies Related to Annexations	3300

Chapter 1

ANNEXATION PROCEDURE

Sec.
3100. Request for Annexation
3101. Submittal of Request
3102. Board Consideration of Request for Annexation
3103. Board Approval of Request for Annexation
3104. Mandatory Terms and Conditions
3105. Waiver of Charge and Fee
3106. Payment Requirement
3107. Water Use Efficiency Guidelines
3108. Time for Completion of Annexation

§ 3100. Request for Annexation.

(a) Board approval process.

The Board will act to approve annexations in a one or two step process. The member public agency shall indicate its preference for a one or two step process, with the process selected subject to the approval of the General Manager or Executive Committee. In either case, all annexation requests must comply with all requirements of Section 3100(b), (c) and (d).

(1) Two step Board approval process.

In a two step Board approval process, the member public agency shall submit requirements of Section 3100(b) for conditional Board consideration and thereafter, when appropriate, the requirements of Section 3100(c) for final Board consideration.

(2) One step Board approval process.

If a one step Board approval process is selected, a notice of intent, legal description and map (Section 3100(b) 1) must be received and approved by the District prior to filing a

submittal request with the Local Agency Formation Commission (LAFCO). Within 30 days of receipt, the District will review, and approve or comment upon these materials. Once LAFCO approval and all other requirements pursuant to Section 3100(b) and (c) have been obtained, the member public agency shall submit said documentation to the District for Board consideration.

(b) Conditional approval submittal requirements.

A request for annexation of area to the District shall be made in writing and executed on behalf of the member public agency or proposed member public agency within which the area is or is proposed to be situated.

The request shall include:

(1) A legal description and a detailed map of the area proposed to be annexed, clearly indicating the metes and bounds of the area and the gross and net acreage for the area with sufficient documentation to support the gross and net acreage specified;

(2) A certificate from the assessor of the county within which the area proposed to be annexed is situated setting forth the assessed valuation of each parcel included within the area;

(3) Identification of the ownership of each parcel included within the area proposed to be annexed;

(4) A statement setting forth whether the number of voters within the area proposed to be annexed is less than 12, or 12 or more; and

(5) A description of:

(i) Present use of each of the parcels included within the area proposed to be annexed;

(ii) Existing or proposed development plans for such parcels;

(iii) An estimate of total annual and peak demands for water service to the area proposed to be annexed; and

(iv) An estimate of the portion of such annual and peak demands to be supplied by the District.

(6) A plan for implementing the water use efficiency guidelines set forth in Section 3107;

(7) Payment of $5,000 processing fee to cover the District's cost of handling the request for annexation, unless waived pursuant to Section 3105;

(8) A statement indicating if it is proposed that payment for the annexation charge is to be pursuant to Sections 3106(b) and (c), and sufficient justification to demonstrate security for future payments, in a form approved by the General Counsel with Board approval; and

(9) The member public agency within which the area is situated shall furnish such other information as may be requested by the District's General Manager.

(c) Final approval submittal requirements.

Prior to final approval of the proposed annexation, as provided in Section 3103, the request shall be supplemented by the member public agency with the following materials:

(1) Any changes to the annexation documentation submitted previously;

(2) Certified copy of member public agency resolution requesting approval of the annexation; and

(3) Documents complying with the California Environmental Quality Act (CEQA).

(d) Annexation completion requirements.

Prior to submitting a request to LAFCO for recording the Certificate of Completion for the proposed annexing area, the member public agency must submit to the District the following materials:

(1) Certified copy of member public agency resolution(s) accepting District final terms and conditions and ordering a reorganization;

(2) Payment of the annexation charge pursuant to Section 3106(a) or provision of appropriate and fully executed documentation pursuant to Section 3106(b); and

(3) Certified copy of LAFCO resolution approving the annexation to the member public agency.

(e) Reattachment requests.

The General Manager is authorized to approve, without payment of processing fees or annexation charges, the reannexation of any territory which has deannexed from the District under reasonable terms and conditions as may be established by the General Manager, which shall include payment of any property taxes, standby charges or other avoided charges for the period of deannexation.

M.I. 38048 – January 9, 1990; subparagraph (a)(5) added and amended by M.I. 38538 - October 9, 1990, paragraph (a) amended by M.I. 40406 - August 24, 1993; amended by M.I. 41898 - May 14, 1996; paragraph (a) amended by M.I. 42193 - December 10, 1996; paragraphs (a), (a)(1), (b), (b)(9), (c)(2) amended, (c)(3) deleted, (c)(4) renumbered, paragraphs (d)(1) and (2) amended, (d)(3) added, and paragraph (e) amended by M. I. 44582 – August 20, 2001; paragraph (a) amended, and subparagraph (a)(2) amended by M.I. 50155 - June 9, 2015.

§ 3101. Submittal of Request.

A request for annexation and all information required in connection therewith shall be submitted to the General Manager.

M.I. 38048 – January 9, 1990; amended by M. I. 44582 – August 20, 2001.

§ 3102. Board Consideration of Request for Annexation.

The Board, and any standing committee of the Board reviewing a request for annexation, will consider such request at their next regular meeting taking place no earlier than 75 days after receipt by the District of the request for annexation and all information required to be submitted by the one or two step Board approval process.

M.I. 38048 – January 9, 1990; amended by M.I. 38538 - October 9, 1990, amended by M.I. 40406 - August 24, 1993; amended by M.I. 41898 - May 14, 1996; amended by M. I. 44582 – August 20, 2001.

§ 3103. Board Approval of Request for Annexation.

(a) Two step Board approval process

Unless otherwise stated in the request for annexation, the Board will act on the request:

(1) By establishing preliminary terms and conditions for the conditional approval of the annexation upon filing of the submittals required by Section 3100(b).

(2) By considering final approval of the annexation subject to terms and conditions then to be established after receipt of the submittals required by Section 3100(c)

(b) One step Board approval process

The Board will consider approval of the annexing area subject to terms and conditions then to be established after receipt of all submittals required pursuant to Sections 3100(b) and (c).

M.I. 38048 – January 9, 1990; paragraph (a) amended and paragraph (b) added by M.I. 41898 - May 14, 1996; paragraphs (a)(1) and (a)(2) amended by M. I. 44582 – August 20, 2001; paragraph (b) amended by M.I. 50155 - June 9, 2015.

§ 3104. Mandatory Terms and Conditions.

All terms and conditions of annexation shall contain the following provisions:

(a) The sale and delivery of all water by the District, regardless of the nature and time of use of such water, shall be subject to regulations promulgated from time to time by the District.

(b) Except upon terms and conditions specifically approved by the Board, water sold and delivered by the District shall not be used in any manner which intentionally or avoidably results in the direct or indirect benefit of areas outside the District including use of such water outside the District or use thereof within the District in substitution for other water used outside the District.

(c) No District water shall be sold or delivered to any member public agency for use, directly or indirectly, for agricultural purposes as defined in Section 4106 within the annexing area.

(d) The District shall not be obligated to provide additional works or facilities, necessitated by the annexing area, for the delivery of water from works owned and operated by the District.

(e) The annexation shall be completed by the date established pursuant to Section 3108(a).

M.I. 38048 - January 9; 1990, paragraph (e) added by M.I. 40406 - August 24, 1993.

§ 3105. Waiver of Charge and Fee.

The processing fee and the annexation charge may be waived in cases where the Board itself requests a small annexation to prevent or close a "window" in an existing member public agency or pursuant to Section 3100(e).

M.I. 38048 – January 9, 1990; amended by M.I. 41898 - May 14, 1996.

§ 3106. Payment Requirements.

(a) All annexation charges shall be paid in full in cash prior to completion of the annexation except where the Board approves installment payments pursuant to Section 3106(b) and (c).

(b) Subject to Board approval, a portion of the annexation charge may be paid in installments upon terms and conditions listed in Section 3106(c), and in form approved by the General Counsel, if the member public agency assumes the obligation for said payments, to be collected

as part of monthly water sales invoices, or other security is provided which guarantees said payments.

(c) Installment payments shall be subject to the following terms and conditions pursuant to each ownership:

(1) Minimum down payment of 10%.

(2) Maximum term of 15 years.

(3) Interest at the greater of the weighted average yield on invested funds of the District or the Districts then current cost of borrowing funds.

(4) Minimum net annexation acreage of 50 acres; or

(5) Under such other conditions as may be determined by the Board of Directors.

M.I. 38048 – January 9, 1990; paragraph (a) amended and paragraphs (b) and (c) added by M.I. 41898 - May 14, 1996.

§ 3107. Water Use Efficiency Guidelines.

The member agency representing the parcels considered for annexation shall submit evidence of compliance with the following:

(a) Annual member agency water demand shall be minimized by incorporating water conservation measures into new development plans and service agreements. Use of groundwater, local surface water, and recycled wastewater supplies shall be maximized to reduce demands on the District.

(b) Peak demands on the District shall be minimized by construction and operation of local storage and groundwater production facilities. Member agencies shall offer all District sponsored water conservation programs to new developments and encourage participation in those programs. Member agencies shall offer a specific program, independent of District funding, to new development to encourage water use efficiency of landscapes or other water savings opportunity.

(c) Recycled water of adequate quality shall be used whenever it is available to be used, in accordance with California Water Code Sections 13550-13554.

(d) "Best management practices" conservation measures shall be conditioned on all new developments within the member agency consistent with applicable City or County building codes for areas already within the District, and to District water conservation guidelines for annexing areas.

(e) Local storage, groundwater production capacity, system interconnections, and other measures shall be able to sustain a 7-day interruption in service from the District pursuant to MWD Administrative Code Section 4503 "Suspension of Deliveries."

(f) The member agency, wholesale water agency, and local water purveyor of the annexing area shall be signatories and in compliance with the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU) Regarding Urban Water Conservation in California. The District may request amendments to the water conservation measures to be imposed on new development within the member agency based on current water-use efficiency policies and reasonable conservation practices and measures.

Reporting Requirements:

The member public agency shall be responsible for assuring compliance with these provisions and shall report to the District on a yearly basis regarding such compliance. Reports would include the following information regarding the member agency:

(a) Incorporated conservation measures in new development plans and service agreements;

(b) Recycled water, groundwater, and local surface water use including total annual production of local water supplies;

(c) 7-day interruption contingency;

(d) Report as submitted to CUWCC; and

(e) Member agency and local water purveyor shall have submitted a current Urban Water Management Plan (UWMP) provided the agency or purveyor is required to submit a UWMP under State law.

District staff shall review the reports and provide an annual information report to the Board on member agencies' reporting compliance. District staff will ensure that the annexing member agency is in compliance with its reporting before presenting subsequent annexation requests to the Board. Staff shall provide any prior member agency reports to the Board for its consideration in future annexation requests. The District's General Manager or designee is authorized to make minor adjustments to reporting requirements for member agencies as deemed reasonable and appropriate. Reporting requirements under this section of the Code are required for annexation requests after April 1, 2005. Reporting will be continuous on an annual basis for a six-year period following the latest annexation by the member agency.

M.I. 38538 – October 9, 1990; amended by M.I. 39787 - August 20, 1992; amended by M.I. 41898 - May 14, 1996; paragraphs (a), (b), (c), (d), and (e) amended, and paragraph (f) added by M. I. 45941 – October 12, 2004.

§ 3108. Time for Completion of Annexation.

(a) The annexation shall be completed by December 31 of the year following the year in which the annexation receives approval of the Board. If the annexation is not completed by that date, a new request in conformance with Section 3100(b) and (c) must be made. A one year extension of the time in which to complete the annexation may be granted if a request for the extension is made in writing by the member public agency prior to the expiration date. The request for extension of time shall include the following:

(1) Specific details as to why the annexation could not be completed within the time provided;

(2) A resolution from the member public agency requesting an extension of time and reaffirmation of the terms and conditions established by the Board;

(3) Any changes that have occurred in the circumstances of the annexation since the terms and conditions were established;

(4) Payment of a $1,500 processing fee to cover the District's costs of handling the request for time extension;

(5) A certificate from the assessor of the county within which the area proposed to be annexed is situated setting forth the assessed valuation of each parcel included within the area; and

(6) Any other information as may be requested by the District's General Manager.

(b) If the General Manager finds that there is no significant change in the circumstances surrounding the annexation, he shall grant an extension for one year subject to any new mandatory terms and conditions which have been adopted by the Board since the original approval of the annexation, and further subject to payment of the current annexation charges. If the General Manager finds that there are significant changes in the circumstances surrounding the annexation, he shall submit the request for extension to the Board in accordance with Section 3102.

(c) The General Manager shall find that there is a significant change in the circumstances surrounding the annexation if the size of the annexation area changes, the proposed water usage in the annexation area increases, the intensity or type of land use changes, the CEQA documents are modified or additional documents are issued, or there is any other change in the circumstances of the annexation which the General Manager deems to be significant.

M.I. 40406 - August 24, 1993; amended by M.I. 41898 - May 14, 1996.

Chapter 2

POLICIES RELATED TO ANNEXATIONS

Sec.
3200. Water Availability
3201. Annexation Criteria - Avoidance of Windows

§ 3200. Water Availability.

In treating with application for annexation as member public agencies the District will give its favorable consideration only to areas of sufficient size and water requirements to justify as economically feasible the delivery of imported water. Preferably such areas should be so located as to control the entire production of water from local underground water basins affected.

Section 301.1.2 - Special Water Problems Committee - October 26, 1938. Section 301.1.2 repealed and Section 3100 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; renumbered Section 3200 by M.I 38048 – January 9, 1990; amended by M.I. 41898 - May 14, 1996.

§ 3201. Annexation Criteria - Avoidance of Windows.

An area proposed for annexation shall not, after annexation, leave an unannexed area entirely surrounded by area annexed to the District ("window") unless the Board finds that the District's interests will not be adversely affected by the existence of such window.

Section 301.5 based on Water Problems Committee Statement - November 19, 1962; amended by M.I. 36333 - October 14, 1986. Section 301.52 repealed and Section 3102 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; renumbered Section 3201 by M.I. 38048 – January 9, 1990.

Chapter 3

FINANCIAL POLICIES RELATED TO ANNEXATIONS

Sec.
3300. Annexation Charge Computation
3301. Taxes for Past Annexations

§ 3300. Annexation Charge Computation.

Annexation Charge - The annexation charge for areas newly annexing to the District shall be the greater of the amounts computed under Sections 3300(a) and 3300(b):

(a) Back-Tax Computation - The annexing area shall be required to pay an amount that bears the same relation to total District taxes levied and annexation taxes to be levied (both exclusive of interest or adjusting factors) as the assessed valuation of the annexation area bears to the assessed valuation of the District, all data to be as of the August 31 preceding the year in which the annexation will be effective, and back interest to be simply calculated by multiplying the amount established as the bare back tax obligation by 5 percent and the resultant by half the number of years since taxes were first levied by the District.

(b) Per-acre Charge - The annexation charge per acre of land, other than land devoted to public roads, streets, highways, and freeways, to be paid by the annexing areas shall be determined by dividing the sum of the estimated replacement cost of the District's facilities and the participation rights in facilities of the State Water Project and other non-District owned projects in which Metropolitan participates, less accumulated depreciation of the District's facilities and participation rights on a replacement cost basis, less outstanding bonded indebtedness of the District's facilities and participation rights, by the total acreage within the service area of the District, all as of the end of the recently completed fiscal year.

M.I. 38048 – January 9, 1990; amended by M.I. 38304 - June 12, 1990; paragraph (b) amended by M.I. 39744 - July 14, 1992; paragraph (b) amended by M.I. 40406 - August 24, 1993; amended by M.I. 41204 - January 10, 1995; paragraph (b) amended by M. I. 46106 – February 8, 2005.

§ 3301. Taxes for Past Annexations.

(a) Effective with the 1981-82 fiscal year a tax rate of 18.75 cents per $100 of assessed valuation (to be stated as .1875% for tax levying and collecting purposes) has been established to collect annexation charges from areas annexed to the District after September 13, 1966 and before July 1, 1978 and such rate shall be continued until the annexation charge and interest on unlevied balances thereof have been raised provided, however, that in an area annexing after August 19, 1976 and before July 1, 1978 such rate shall in no event be levied for any fiscal year following the fiftieth year after the area has been annexed to the District.

(b) Effective with the 1981-82 fiscal year a tax rate of 18.75 cents per $100 of assessed valuation (to be stated as .1875% for tax levying and collecting purposes) has been established to collect the balance of the annexation charges from areas which annexed to the District prior to September 13, 1966, and such rate shall be continued until said balance of the annexation charges and interest on unlevied balances thereof have been raised.

(c) If for any reason (due to adoption in this State of tax limitation Constitutional initiatives, legislation or otherwise), any or all of the District's taxes to raise the minimum annexation charge are unable to be levied, then the Board shall have the option to collect such charge, or unlevied balances thereof, with interest at 5 percent per annum, within said area through any lawful means now, or to become, available to the District.

M.I. 38048 – January 9, 1990; paragraph (a) & (b) amended by M. I. 47286 - November 20, 2007.

Division IV

WATER SERVICE POLICIES

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Chapter 1

DEFINITIONS

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§ 4100. General.

The definitions in this Chapter shall govern the meaning of the terms when used in this Division.

Res. 7666 - April 13, 1976; Section 313.2 amended by M.I. 33642 - March 10, 1981. Section 312.2 repealed and Section 4100 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4101. Colorado.

"Colorado" as a source of water shall mean water obtained by the District from the Colorado River through facilities owned by the District.

Res. 7666 - April 13, 1976; Section 312.2.1 amended by M.I. 33642 - March 10, 1981. Section 312.2.1 repealed and Section 4101 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4102. State.

"State" as a source of water shall mean water obtained by the District from facilities of the California State Water Project.

Res. 7666 - April 13, 1976; Section 312.2.2 amended by M.I. 33642 - March 10, 1981. Section 312.2.2 repealed and Section 4102 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4103. Treated Water.

"Treated water" shall mean water that is treated by filtration and disinfection at any District water treatment facility.

Res. 7666 - April 13, 1976; Section 312.2.3 amended by M.I. 33642 - March 10, 1981. Section 312.2.3 repealed and Section 4103 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; amended by M.I. 40976 - August 19, 1994.

§ 4104. Untreated Water.

"Untreated water" shall mean water that is not treated water.

Res. 7666 - April 13, 1976; Section 312.2.4 amended by M.I. 33642 - March 10, 1981. Section 312.2.4 repealed and Section 4104 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4105. Domestic and Municipal Purposes.

"Domestic and municipal purposes" shall mean, but is not limited to, the use of water for all domestic, municipal, commercial, industrial, and recreational purposes.

Res. 7666 - April 13, 1976; Section 312.2.5 amended by M.I. 33642 - March 10, 1981. Section 312.2.5 repealed and Section 4105 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; amended by M.I. 44005 - May 17, 2000.

§ 4106. Interim Agricultural Water Program Purposes.

"Interim Agricultural Water Program purposes" shall mean the service of water pursuant to the Interim Agricultural Water Program and this Division IV which is delivered and used for the growing or raising, in conformity with recognized practices of husbandry, for the purposes of commerce, trade, or industry, or for use by public educational or correctional institutions, of agricultural, horticultural, or floricultural products, and produced (1) for human consumption or for the market, or (2) for the feeding of fowl or livestock produced for human consumption or for the market, or (3) for the feeding of fowl or livestock for the purpose of obtaining their products for human consumption or for the market, such products to be grown or raised on a parcel of land having an area of not less than one acre utilized exclusively therefor.

(a)"Interim Agricultural Water Program purposes limited to the growing of field and nursery crops and row crops" shall mean the service of water related to the growing of crops generally planted and harvested annually or more frequently, and other Interim Agricultural Water Program purposes not included in the definitions of Sections 4106(b) and 4106(c).

(b)"Interim Agricultural Water Program purposes limited to the growing of trees and vines" shall mean the service of water limited to the growing of crops which are planted less frequently than annually in the expectation of long-term yield therefrom.

(c)"Interim Agricultural Water Program purposes limited to the feeding of fowl or livestock" shall mean the service of water encompassing the raising of animals for human consumption or for the market or for the purpose of obtaining their products for human consumption or for the market.

(d) The Interim Agricultural Water Program was discontinued after December 31, 2012.

Res. 7666 – April 13, 1976; Section 312.2.6 amended and paragraphs (a), (b) and (c) [formerly Sections 313.2.6.1 - 312.2.6.3] added by M.I. 33642 – March 10, 1981. Section 312.2.6 repealed and Section 4106 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; Section renamed and paragraphs (a)-(c) amended by M. I. 44005 - May 17, 2000; Paragraph amended by M.I. 44812 - March 12, 2002; added paragraph (d) by M.I. 50323 - December 8, 2015.

§ 4107. Groundwater Replenishment by Spreading.

"Groundwater replenishment by spreading" shall mean the act of spreading or causing to be spread, water for the purpose of replenishing natural groundwater basins, without regard to subsequent use of the water.

Res. 7666 - April 13, 1976; Section 312.2.7 amended and paragraphs (a)and (b) [formerly Sections 313.2.7.1 - 312.2.7.2] added by M.I. 33642 - March 10, 1981. Section 312.2.7 repealed and Section 4107 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; amended and paragraphs (a) and (b) deleted by M.I. 42608 - September 9, 1997.

§ 4108. Groundwater Replenishment by Injection.

"Groundwater replenishment by injection" shall mean the act of injecting or causing to be injected, water for the purpose of replenishing natural groundwater basins.

(a) "Direct replenishment by injection" shall mean groundwater replenishment that results from the act of injecting without regard to subsequent use of the water.

(b) "Seawater barrier groundwater replenishment" shall mean groundwater replenishment having as a principal purpose the injection of water for the purpose of maintaining groundwater barriers designed and intended to avoid the contamination of groundwater storage basins by the intrusion of seawater.

Former Section 4108 renumbered to Section 4109 and new Section 4108 added by M.I. 42608 - September 9, 1997; paragraph (b) amended by M. I. 44812 - March 12, 2002; paragraph (b) deleted and paragraph (c) renumbered by M. I. 45249 - March 11, 2003; amended paragraph (a) by M.I. 50323 - December 8, 2015.

§ 4109. In-Lieu Groundwater Replenishment.

"In-lieu groundwater replenishment" shall mean maintenance or replenishment of water supplies in groundwater basins by reduction or elimination of extraction therefrom through the substitution of deliveries of water to consumers from surface distribution facilities in lieu of such extraction.

Section 312.2.8 - M.I. 33642 - March 10, 1981. Section 312.2.8 repealed and Section 4108 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; amended by M.I. 41468 - June 13, 1995; Section 4108 renumbered to Section 4109 by M.I. 42608 - September 9, 1997.

§ 4110. Direct Reservoir Replenishment.

"Direct reservoir replenishment" shall mean the act of storing water in surface reservoirs for long-term storage by delivering water directly into a reservoir.

Section 312.2.9 - M.I. 33642 - March 10,1981. Section 312.2.9 repealed and Section 4109 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; amended by M.I. 41617 - October 10, 1995; Section 4109 renumbered to Section 4110 by M.I. 42608 - September 9, 1997; paragraph and title amended by M. I. 45249 - March 11, 2003; amended by M.I. 50323 - December 8, 2015.

§ 4111. In-Lieu Reservoir Replenishment.

"In-lieu reservoir replenishment" shall mean the act of storing water in surface reservoirs for long-term storage by reducing or eliminating local supply outflow, through substitution of deliveries of water to consumers from surface distribution facilities in lieu of such withdrawals, thus conserving storage acquired from local sources.

Previous Section 4110 renumbered to Section 4111 and new Section 4110 added by M.I. 41617 - October 10, 1995; Section 4110 renumbered to Section 4111 by. M.I. 42608 - September 9, 1997; paragraph and title amended by M. I. 45249 - March 11, 2003; amended by M.I. 50323 - December 8, 2015.

[§ 4112 repealed by M. I. 45249 - March 11, 2003.]

[§ 4113 repealed by M. I. 44812 - March 12, 2002.]

§ 4114. Replenishment Service.

"Replenishment Service" shall mean delivery of water for long-term storage in either groundwater basins or surface reservoirs by direct or in-lieu means. Direct means shall be either through groundwater spreading or through injection. The Replenishment Service Program was discontinued after December 31, 2012.

M.I. 37006 - February 9, 1988; amended by M.I. 37764 - July 11, 1989; amended by M.I. 41468 - June 13, 1995; amended by M.I. 42109 - October 8, 1996; paragraph and title amended by M. I. 45249 - March 11, 2003; amended by M.I. 50323 - December 8, 2015.

[§ 4115 repealed by M. I. 44812 - March 12, 2002]

[§ 4116 repealed by M. I. 44812 - March 12, 2002]

§ 4117. Cooperative Storage Program.

"Cooperative Storage Program" shall mean the program that provides a means for coordinating the District's carryover storage needs with storage capacity available to member public agencies, on the basis that the stored water will eventually be released to respective participating member public agencies pursuant to the regulations provided by Section 4517.

M.I. 40976 - August 19, 1994; Original Section 4117 repealed and Section 4118 renumbered 4117 by M.I. 44005 - May 17, 2000.

§ 4118. Cooperative Storage Program Sale.

"Cooperative Storage Program Sale" shall describe the transaction that occurs at the time a water delivery is made by the District under the Cooperative Storage Program. Any such delivery is deemed a sale to the receiving member public agency when delivered to it for storage, with payment to the District deferred as provided in subsection 4517(i). For administrative record keeping purposes, such a transaction will be recorded as an advance delivery until invoiced as a sale by the District at the time of release.

M.I. 40976 - August 19, 1994; amended by M.I. 41404 - May 9, 1995; Original Section 4119 renumbered 4118 by M.I. 44005 - May 17, 2000; amended by M. I. 44812 - March 12, 2002.

§ 4119. Wheeling Service.

"Wheeling Service" shall mean the use of Metropolitan's facilities, including its rights to use State Water Project facilities, to transport water not owned or controlled by Metropolitan to its member public agencies, in transactions entered into by Metropolitan for a period of up to one year.

M.I. 42335- March 11, 1997; Original Section 4120 renumbered 4119 by M. I. 44005 - May 17, 2000.

§ 4120. Purchase Order; Purchase Order Commitment.

"Purchase Order" shall mean a member agency's written commitment to purchase a specified total volume of water from the District during a specified period, as provided in Section 4404. "Purchase Order commitment" shall mean the amount of system water a member agency commits to purchase over the term of the Purchase Order.

M. I. 44812 - March 12, 2002; amended by M. I. 45249 - March 11, 2003; amended by M.I. 49952 - November 18, 2014.

§ 4121. Supply Rates.

"Supply Rate" shall mean (i) the Tier 1 Supply Rate and (ii) the Tier 2 Supply Rate, as applicable to a particular purchase of water pursuant to Section 4404. The Tier 1 and Tier 2 Supply Rate shall be set from time to time by the District to recover the cost of maintaining existing supplies and developing additional supplies of water.

M. I. 44812 - March 12, 2002.

§ 4122. Base Period Demand; Revised Base Firm Demand; Initial Base Firm Demand.

"Base Period Demand" shall mean the amount specified in a member agency's Purchase Order, that is either: a) the member agency's Revised Base Firm Demand, as specified in this Section; or b) the member agency's highest fiscal year purchases from fiscal year 2003 through 2014; provided, however, that if the member agency's five-fiscal year rolling average of purchases of water from the District for the most recent five fiscal year period, excluding water purchased under an interruptible program, exceeds the member agency's Initial Base Period Demand, then the member agency's Base Period Demand for each subsequent calendar year shall be increased to the member agency's five-fiscal year rolling average. "Initial Base Firm Demand" shall mean the member agency's highest annual delivery of water from the District, excluding water delivered under Long-Term Seasonal Storage Service, Interruptible Service, and Interim Agricultural Water Program Service, during any fiscal year from fiscal year 1989/90 through fiscal year 2001/02.

Effective as of January 1, 2013, each member agency's Revised Base Firm Demand is as follows:

Member Agency	Revised BFD
Anaheim	27,154
Beverly Hills	14,867
Burbank	18,640
Calleguas	122,498
Central Basin	119,617

Compton	5,620
Eastern	102,694
Foothill	13,081
Fullerton	12,554
Glendale	29,135
Inland Empire	103,648
Las Virgenes	22,999
Long Beach	57,560
Los Angeles	372,959
MWDOC	311,769
Pasadena	23,533
San Diego	655,903
San Fernando	1,049
San Marino	1,998
Santa Ana	21,797
Santa Monica	12,344
Three Valleys	83,248
Torrance	23,297
Upper San Gabriel	74,698
West Basin	175,024
Western	94,567

M. I. 44812 - March 12, 2002; amended by M. I. 45249 - March 11, 2003; added second and third paragraphs by M.I. 49272 - December 11, 2012; amended first and third paragraphs, and deleted second paragraph by M.I. 49952 - November 18, 2014.

§ 4123. System Access Rate.

"System Access Rate" shall mean a dollar per acre-foot water rate imposed by the District to recover a portion of the District's costs associated with the conveyance and distribution system, including capital, operating and maintenance costs.

M. I. 44812 - March 12, 2002.

§ 4124. Water Stewardship Rate.

"Water Stewardship Rate" shall mean a dollar per acre-foot water rate imposed by the District to recover a portion of the costs of the District's financial commitment to conservation, water recycling, groundwater recovery and other water management programs approved by the Board.

§ 4124 Repealed by M. I. 45249 - March 11, 2003; Re-adopted by M.I. 49187 - September 11, 2012.

§ 4125. System Power Rate.

"System Power Rate" shall mean a dollar per acre-foot water rate imposed by the District to recover the melded cost of power necessary to pump water from the State Water Project and Colorado River through the conveyance and distribution system for the District's member public agencies.

M. I. 44812 - March 12, 2002.

§ 4126. Treatment Surcharge.

"Treatment Surcharge" means a dollar per acre-foot water rate imposed by the District to recover the District's costs of providing water treatment capacity and operations.

M. I. 44812 - March 12, 2002.

§ 4127 Emergency Storage Program Purposes.

"Emergency Storage Program purposes" shall mean delivery of water pursuant to the Emergency Storage Program for the purpose of emergency storage in surface water reservoirs and storage tanks. Emergency Storage Program purposes include initially filling a newly constructed reservoir or storage tank and replacing water used during an emergency. Emergency Storage Program service shall be governed by the provisions of Sections 4507 and 4518.

M.I. 45941 – October 12, 2004.

Chapter 2

REGIONAL WATER MANAGEMENT

Sec.

4200. Water Availability
4201. Mission Statement
4202. Avoidance in District Service Area of Overlapping or Paralleling Governmental Authorities (Laguna Declaration)
4203. Water Transfer Policy
4204. Sale of Water by State in District Boundaries
4205. Sale of Water by One Member Public Agency to Another
4206. Carryover Storage
4207. Exchange of Water
4208. No Recreational Use of Lake Mathews
4209. Contracts
4210. Water Conservation
4211. Sale of Water to State or Federal Governmental Agencies

§ 4200. Water Availability.

District water will be available only to cities and areas now or hereafter included within the legal boundaries of the District. This means that District water will not be sold or released under any terms to any area as long as such area is outside the boundaries of the District except as may be approved by the Board.

Section 301.1.1 - Special Water Problems Committee - October 26, 1938. Section 301.1.1 repealed and Section 4200 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; amended by M.I. 40976 - August 19, 1994.

§ 4201. Mission Statement.

The mission of The Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high quality water to meet present and future needs in an environmentally and economically responsible way.

M.I. 39412 - January 14, 1992.

§ 4202. Avoidance in District Service Area of Overlapping or Paralleling Governmental Authorities (Laguna Declaration).

(a) The District is prepared, with its existing governmental powers and its present and projected distribution facilities, to provide its service area with adequate supplies of water to meet expanding and increasing needs in the years ahead. When and as additional water resources are required to meet increasing needs for domestic, industrial and municipal water, the District will be prepared to deliver such supplies.

(b) Taxpayers and water users residing within the District already have obligated themselves for the construction of an aqueduct supply and distribution system. This system has been designed and constructed in a manner that permits orderly and economic extensions and enlargements to deliver the District's full share of Colorado River water and State Project water as well as water from other sources as required in the years ahead. Establishment of overlapping and paralleling governmental authorities and water distribution facilities to service Southern California areas would place a wasteful and unnecessary financial burden upon all of the people of California, and particularly the residents of Southern California.

Section 301.2 based on M.I. 14727 - December 16, 1952. Section 301.2 repealed and Section 4201 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; Section 4201 renumbered Section 4202 by M.I. 39412 - January 14, 1992.

§ 4203. Water Transfer Policy.

To meet its public water supply objectives in the future, Metropolitan will vigorously pursue the development of water transfers, subject to the following considerations:

(a) Water transfers, including water marketing, will be developed only on a voluntary basis with willing partners;

(b) A full-range of water transfer options will be pursued, including arrangements with appropriate state and federal agencies, public and private water entities, and individual water users;

(c) Water transfers will be designed to protect and, where feasible, enhance environmental resources;

(d) Water transfers will be designed to avoid contributing to or creating a condition of long-term groundwater overdraft;

(e) Efforts will continue to develop water transfers in cooperation with the agricultural community, which seek to avoid unreasonable operational and financial impacts; and

(f) Strategies will be developed to appropriately address community impacts of water transfers.

M.I. 39412 - January 14, 1992.

§ 4204. Sale of Water by State in District Boundaries.

The State shall make no other contract to supply project water for use within the boundaries of the District without the consent of the District, and shall not authorize any other contractor to supply project water for use outside such other contractor's boundaries and within the boundaries of the District without the consent of the District.

Section 322.13.1 based on Amendment No. 12 to Metropolitan - State Water Contract dated November 11, 1960 - Article 15(d) thereof; amended by M.I. 33642 - March 10, 1981; Section 322.13.1 repealed and Section 4202 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; Section 4202 renumbered Section 4204 by M.I. 39412 - January 14, 1992.

§ 4205. Sale of Water By One Member Public Agency to Another.

The General Manager and General Counsel shall report to the Board any sale of water by one member public agency to another. The District will not deliver water at the request of one member public agency into the territory of another member public agency without written authorization from both affected member public agencies.

Section 322.13.2 based on M.I. 15647 - May 4, 1954; amended by M.I. 32690 - April 10, 1979; amended by M.I. 33642 - March 10, 1981. Section 322.13.2 repealed and Section 4203 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; Section 4203 renumbered Section 4205 by M.I. 39412 - January 14, 1992; amended by M. I. 45637 - January 13, 2004.

§ 4206. Carryover Storage.

(a) The General Manager is authorized to store District water in any storage facility within any member public agency of the District where storage capacity is available. Further, the General Manager is instructed that no water is to be delivered or supplied under any storage contract until he has determined that sufficient water supplies will be available to fill the District's storage reservoirs.

(b) The General Manager is authorized to modify any arrangements with member public agencies for storage of water to provide for carryover storage, which modification shall be effective only when in writing and executed by the General Manager.

(c) Following the conclusion of each calendar year, the General Manager shall evaluate the District's carryover storage and determine the amount of carryover storage the District is expected to need during the ensuing calendar year.

Section 322.13.3 based on M.I. 25031 - December 14, 1965; paragraph (b) [formerly Section 322.13.3.2] added by M.I. 27396 - March 11, 1969; amended by M.I. 33642 - March 10, 1981; paragraph (a) [formerly Section 322.13.3.1] amended by M.I. 35992 - March 11, 1986. Section 322.13.3 repealed and Section 4204 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; Section 4204 renumbered Section 4206 by M.I. 39412 - January 14, 1992; paragraph (a) amended by M.I. 40976 - August 19, 1994; paragraph (c) added by M.I. 40969 - August 19, 1994; paragraph (b) amended by M.I. 41404 - May 9, 1995.

§ 4207. Exchange of Water.

(a) The District's policy is that any exchange of Colorado River water for State Project water between the District and any state water service contractors shall be based upon such contractor paying all of the costs associated with delivery of State water at such contractor's delivery point, or at such other point as may be mutually agreed upon, which would result in the lowest cost to the District under such exchange.

(b) If two or more member public agencies of the District desire to enter into a water exchange arrangement, the District will cooperate in such an arrangement, subject to available capacity in the District's facilities and subject to availability of water for such exchange purposes, as determined by the District.

(c) The General Manager is authorized to enter into any economically beneficial water exchange agreement, in form approved by the General Counsel, without prior Board approval upon a determination that the exchange provides water quality benefits. The annual total of all exchanges under this subsection authority shall not exceed 50,000 acre-feet. The annual cumulative net exchange cost of exchanges under this subsection shall not exceed $500,000. Water exchanges authorized under this subsection are exempt from competitive bidding requirements under the terms of Administrative Code Section 8103. Such agreement shall be reported to the Board at the next meeting after which it is made.

Section 322.13.4 – paragraph (b) [formerly Section 322.13.4.2] based on M.I. 23612 – February 11, 1964 and paragraph (a) [formerly Section 322.13.4.1] based on M.I. 25756 – December 13, 1966; amended by M.I. 33642 – March 10, 1981. Section 322.13.4 repealed and Section 4205 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; Section 4205 renumbered Section 4207 by M.I. 39412 - January 14, 1992; paragraph (c) added by M. I. 44109 - July 11, 2000.

§ 4208. No Recreational Use of Lake Mathews.

The policy existing since 1939 that Lake Mathews not be used for recreational purposes is reaffirmed.

Section 322.13.6 based on M.I. 16404 – May 10, 1955 and M.I. 31249 – April 24,1961; amended by M.I. 33642 – March 10, 1981; renumbered 322.13.5 by M.I. 34182 – April 13, 1982. Section 322.13.5 repealed and Section 4206 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; [§ 4207 - repealed by M.I. 36806 - September 22, 1987.]; Section 4206 renumbered Section 4208 by M.I. 39412 - January 14, 1992.

§ 4209. Contracts.

The District may join or enter into agreements with member public agencies to make more effective use of water resources, including agreements providing for the wheeling, exchange, or banking of water, so long as such agreements serve a purpose of the District.

Section 322.6.12 - March 10, 1981, effective July 1, 1981; Section 322.6.12 repealed and Section 4208 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; Section 4208 renumbered Section 4209 by M.I. 39412 - January 14, 1992.

§ 4210. Water Conservation.

It shall be the policy of the District to undertake and support water conservation programs. To that end, the District may develop and implement such programs and enter into agreements with member public agencies and other organizations to make more efficient use of water resources through water conservation programs so long as such agreements serve a beneficial purpose of the District.

M.I. 36775 - August 18, 1987; Section 4209 renumbered Section 4210 by M.I. 39412 - January 14, 1992.

§ 4211. Sale of Water to State or Federal Governmental Agencies.

Subject to the provisions of Section 131 of the Metropolitan Water District Act, the General Manager is authorized to enter into contracts for the sale of water for any purpose or use with the United States of America or with any board, department, or agency thereof or with the State of California. Such contracts shall contain at a minimum the following terms:

1. The State or Federal Governmental Agency shall furnish, install, and remove, at no expense to Metropolitan, the facilities required to pump, measure, and transport the water.

2. Metropolitan's option to sell water to a State or Federal Governmental Agency shall be limited to a total quantity of 100 acre-feet per year, per connection, per agency.

3. The price of the water shall be Metropolitan's rate per acre-foot for the class of water in effect at the time of delivery, plus a reasonable capital facility charge and a minimum monthly standby rate if the connection is not used during a billing period.

4. The State or Federal Governmental Agency shall hold Metropolitan harmless from all claims and damages resulting from interruptions in water deliveries and from all damages resulting directly or indirectly from Metropolitan's delivery of water to the State or Federal Governmental Agency.

5. The agreement shall be terminable by either party upon giving written notice to the other party thirty days prior to the effective date of termination.

M.I. 42055 - September 10, 1996.

Chapter 3

WATER SALES REVENUE

Sec.
4300. General
4301. Cost of service and Revenue Requirement
[4302. Repealed]
[4303. Repealed]
4304. Apportionment of Revenues and Setting of Water Rates
4305. Setting of Charges to Raise Fixed Revenue

§ 4300. General.

The amount of revenue to be raised through the sale of water at rates and charges established pursuant to Sections 4400 and 4401 shall be determined in accordance with the provisions of this chapter.

Section 311.1 - M.I. 33007 - November 13, 1979, as clarified by M.I. 33059 - January 15, 1980. Section 311.1 repealed and Section 4300 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; amended by M. I. 44812 - March 12, 2002; amended by M.I. 49187 - September 11, 2012.

§ 4301. Cost of Service and Revenue Requirement.

(a) The District shall fix rates for water such that anticipated water sales revenues, together with anticipated revenues from any water standby or availability of service charge (such as the readiness-to-serve charge or capacity charge) or assessment, ad valorem tax revenues, and other revenues pay the expenses of the District, provide for repairs and maintenance, provide for payment of the purchase price or other charges for property or services or other rights acquired by the District, and provide for the payment of the interest and principal of the District's outstanding bonded debt. Subject to the foregoing, such rates and charges shall reflect the costs of the District's major service functions, including water supply, conveyance, power, storage, distribution and treatment to the greatest degree practicable.

(b) Notwithstanding the provisions in subsection (a) above, amounts raised by ad valorem property taxation shall not exceed the limitations established by section 124.5 of the Act and, subject to those limitations, shall be not less than the approximate equivalent of the amounts levied for fiscal year 1990-91.

Section 311.2 - M.I. 33007 - November 13, 1979, as clarified by M.I. 33059 - January 15, 1980. Section 311.2 repealed and Section 4301 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; amended and paragraph (b) added by M.I. 38749 - February 12, 1991; paragraph titled changed and paragraph (a) amended by M. I. 44812 - March 12, 2002; paragraph (a) amended by M. I. 46148 - March 8, 2005; paragraphs (a)-(b) amended by M.I. 49187 - September 11, 2012.

[§ 4302 Repealed by M. I. 44812 - March 12, 2002]

[§ 4303 Repealed by M. I. 44812 – March 12, 2002]

§ 4304. Apportionment of Revenues and Setting of Water Rates.

(a) Not later than at its February meeting the General Manager shall present to the Finance and Insurance Committee of the Board:

(1) Determinations of the revenue requirements and cost of service analysis supporting the rates and charges required during the biennial period beginning the following July 1, as determined by the General Manager in accordance with current Board policies, and,

(2) Recommendations of rates including, but not limited to, the System Access Rate, Water Stewardship Rate, System Power Rate, Treatment Surcharge, and the Supply Rates for the various classes of water service to become effective each January 1 of the biennial period. These recommended rates shall be the General Manager's determination, made in accordance with current Board policies, of the rates necessary to produce substantially the revenues to be derived from water sales during the biennial period beginning the following July 1.

(b) Not later than at its February meeting, the General Manager shall also present to the Finance and Insurance Committee recommendations regarding the continuation of a water standby charge or the imposition of an availability of service charge (such as the readiness-to-serve charge and capacity charge), which shall be the General Manager's determination, made in accordance with current Board policies, of the charge necessary to produce substantially the revenues to be derived from fixed revenue sources, if any, exclusive of taxes, during the biennial period beginning the following July 1 which the Finance and Insurance Committee has determined to be necessary.

(c) Not later than its February meeting the Finance and Insurance Committee shall set a time or times for, and shall thereafter hold, one or more meetings of the Finance and Insurance Committee, to be held prior to its regular April meeting, at which interested parties may present their views regarding the proposed water rates and availability of service charges to said committee. The Finance and Insurance Committee shall direct the General Manager to cause the publication of a notice of such public hearing to be published in newspapers of general circulation within the District's service area. Such notice shall be published not less than 10 days prior to the public hearing.

(d) Not later than its regular April meeting the Finance and Insurance Committee shall make its determination regarding the revenue requirement to be paid from water rates and the water rates to become effective each January 1 of the biennial period and shall recommend said water rates to the Board no later than the Board's regular April meeting.

(e) Not later than its April meeting, the Board shall establish water rates for deliveries beginning each January 1 of the biennial period.

(f) Proposals for changes in water rates to become effective at times other than on January 1 shall require adequate notice to the public and a hearing before such proposals are acted upon by the Board, unless the Board finds that an immediate change in water rates is urgent.

Section 311.5 - M.I. 32924 – September 18, 1979, as clarified by M.I. 33059 – January 15, 1980; paragraph (g) [formerly Section 311.5.7] amended by M.I. 34867 – September 13, 1983. Section 311.5.7 repealed and Section 4304 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; amended, new paragraphs (d), (f), (i) and (j) added and other paragraphs renumbered by M.I. 39976 - December 8, 1992; paragraphs (b) through (g), (i) and (j) amended by M.I. 41389 - May 9, 1995; paragraphs (a)-(d) amended by M.I. 42193 - December 10, 1996; paragraphs (b) through (g), and (i) and (j) amended by M.I. 43587 - June 8, 1999; paragraphs (a) through (k) amended by M. I. 44582 – August 20, 2001; paragraphs (a) – (g), (i), and (j) amended by M. I. 44812 - March 12, 2002; paragraph (a) amended, (a) (i) & (a) (ii) added, paragraphs (b) & (c) deleted, paragraphs (d) (e) (f) renumbered to (b) (c) (d), paragraph (g) renumbered to (e) and amended, paragraphs (h) (i) renumbered to (f) (g), and paragraphs (j) (k) renumbered to (h) (i), by order of M. I. 45537 - October 14, 2003; paragraphs (a)-(e) and (g)-(h) amended by M. I. 46064 – January 11, 2005; paragraphs (a) through (e), (g) and (h) amended (committee name change) by M. I. 46148 - March 8, 2005; paragraphs (a)-(i) amended by M.I. 46983 February 13, 2007; paragraph(b) and (c) amended, paragraph (d) deleted and renumbered by M.I. 47636 - September 9, 2008; paragraphs (c)-(e) amended by M.I. 48171 - February 9, 2010; paragraphs (a)-(g) amended by M.I. 48534 - January 11, 2011; amended § 4304 title, amended paragraphs (a)-(f), deleted former paragraphs (f) and (g), and renumbered former paragraph (h) by M.I. 49187 - September 11, 2012.

§ 4305. Setting of Charges to Raise Fixed Revenue.

(a) Not later than its regular May meeting each year, the Finance and Insurance Committee shall make its final determination regarding the water standby charge or other fixed revenue charge, if any, for the fiscal year beginning the following July 1, and shall recommend such charge, if any, to the Board at its regular May meeting.

(b) Not later than such May meeting, the Board shall consider and take action upon the recommendations, if any, of the Finance and Insurance Committee regarding a fixed revenue source, exclusive of taxes, to become effective the following January 1 or for the fiscal year beginning the following July 1, as determined by the Board for each fixed revenue source.

M.I. 49187 - September 11, 2012.

Chapter 4

CLASSIFICATION AND RATES

Sec.
4400. Basic Statement
4401. Rates
4402. Readiness-to-Serve Charge
4403. Capacity Charge
4404. Purchase Orders
4405. Wheeling Service

§ 4400. Basic Statement.

The rates and charges set forth herein, so far as practicable, shall result in revenue to meet the obligations set forth in Section 134 of the Metropolitan Water District Act.

Section 312.1 based on Res. 7666 - April 13, 1976; amended by M.I. 33642 - March 10, 1981. Section 312.1 repealed and Section 4400 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; amended by M.I. 41468- June 13, 1995.

§ 4401. Rates.

(a) The rates per acre-foot for water sold and delivered for each class of service on order of any member public agency for use therein shall be as follows:

(1) For all water that does not meet criteria for other classes of service or special programs as defined in this Division, each of the following is applicable:

System Access Rate:

Effective Date:	01/01/2016	**Rate:**	$259.00
	01/01/2017		$289.00
	01/01/2018		$299.00

Water Stewardship Rate:

Effective Date:	01/01/2016	**Rate:**	$ 41.00
	01/01/2017		$ 52.00
	01/01/2018		$ 55.00

System Power Rate:

Effective Date:	01/01/2016	**Rate:**	$138.00
	01/01/2017		$124.00
	01/01/2018		$132.00

Treatment Surcharge (Applicable to treated water):

Effective Date:	01/01/2016	**Rate:**	$348.00
	01/01/2017		$313.00
	01/01/2018		$320.00

Supply Rate:

Tier 1 Supply Rate – The Tier 1 Supply Rate shall apply to water purchases which in the aggregate for any calendar year, are less than or equal to 60 percent of the Revised Base Firm Demand of such member agency as specified in Section 4122, unless that member agency has executed a Purchase Order, as defined in Section 4120, in which case the Tier 1 Supply Rate applies to water purchases as established by the Purchase Order terms.

Effective Date:	01/01/2016	**Rate:**	$156.00
	01/01/2017		$201.00
	01/01/2018		$209.00

Tier 2 Supply Rate –The Tier 2 Supply Rate shall apply when a member agency's cumulative total of water purchases for the calendar year exceeds 60 percent of the member agency's Revised Base Firm Demand as specified in Section 4122, or according to the terms of a Purchase Order for member public agencies that execute a Purchase Order.

Effective Date:	01/01/2016	**Rate:**	$290.00
	01/01/2017		$295.00
	01/01/2018		$295.00

(2) [Reserved]

(b) The rates for water established by Section 4401(a) shall not apply to water sold and delivered by the District to any purchaser other than a member public agency; and said rates for water shall not apply to water sold and delivered by the District for any use outside the District, or to water sold and delivered by the District for any use within the District in substitution for water used outside the District, regardless of whether or not such water be purchased by, or delivered pursuant to the order of, any member public agency; but such water shall be sold and delivered pursuant to such contract and upon such terms and conditions as the Board shall authorize and determine for each such transaction.

(c) For purposes of agreements existing under the Local Resource Program, Local Project Program, Groundwater Recovery Program and other similar programs, references to the "full service water rate," "full service treated water rate," "treated non-interruptible water rate" or "other prevailing rate" or to the "reclaimed water rate" or "recycled service rate" shall be deemed

to refer to the sum of the System Access Rate, Water Stewardship Rate, System Power Rate, the expected weighted average of Tier 1 Supply Rate and Tier 2 Supply Rate (equal to the estimated sales revenues expected from the sale of water at the Tier 1 and Tier 2 Supply Rates divided by the total District sales in acre-feet expected to be made at the Tier 1 and Tier 2 Supply Rates), a Capacity Charge expressed on a dollar per acre-foot basis and Treatment Surcharge.

Section 312.3 based on Res. 7666 - April 13, 1976; paragraphs (a)(1) through (a)(3) [formerly Sections 312.3.1 through 312.3.3] amended by M.I. 31919 – August 19, 1977, M.I. 33644 – March 10, 1981; amended by M.I. 33642 – March 10, 1981; paragraphs (a)(1) through (a)(3) amended by M.I. 34156 – March 9, 1982, effective July 1, 1982, M.I.34635 - March 8, 1983 effective July 1, 1983, M.I. 34851 – September 13, 1983 effective January 1, 1984; paragraphs (a)(4) and (a)(5) [formerly Sections 312.3.4 and 312.3.5] added and paragraphs (b) and (c) [formerly Sections 312.3.4 and 312.5] renumbered by M.I. 34867 – September 13, 1983; paragraph (a)(4) amended by M.I. 34930 – November 8, 1983, effective January 1, 1983; paragraphs (a)(1) through(a)(3) amended by M.I. 35064 – March 13, 1984 effective July 1, 1984; paragraph (a)(4) amended by M.I. 35482 – January 8, 1985; paragraphs (a)(1) through (a)(3) amended by M.I. 35558 – March 12, 1985 effective July 1, 1985, M.I. 36001 – March 11, 1986. Section 312.3 repealed and Section 4401 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; paragraph (a)(1) through (a)(3) and (a)(5) amended by M.I. 36540 - March 10, 1987, effective July 1, 1987; paragraph (c) deleted by M.I. 36811 - September 22, 1987; paragraph (a)(4) amended by M.I. 37006 - February 9, 1988; paragraphs (a)(1) through (a)(3) and (a)(5) amended by M.I. 37045 - March 8, 1988, effective July 1, 1988; par. (a)(4) amended by M.I. 37566 - March 14, 1989 and pars. (a)(1) through (a)(3) and (a)(5) amended by M.I. 37574 - March 14, 1989, effective July 1, 1989; paragraph (a)(4) amended by M.I. 37764 - July 11, 1989, effective August 1, 1989; paragraphs (a)(1) through (a)(5) amended by M.I. 38196 - April 17, 1990, effective July 1, 1990; paragraph (b) renumbered to (c) and new paragraph (b) added by M.I. 38196 - April 17, 1990; paragraphs (a)(1) through (a)(5) amended by M.I. 38867 - April 9, 1991, effective July 1, 1991; paragraph (b) repealed and paragraph (c) renumbered by M.I. 39370 - December 10, 1991; paragraph (a)(1), and (a)(3) through (a)(5) amended by M.I. 39503 - March 10, 1992, effective July 1, 1992; paragraphs (a)(1), and (a)(3) through (a)(5) amended by M.I. 40142 - March 9, 1993, effective July 1, 1993 and April 1, 1993 respectively; paragraph (a)(5) amended for rate to become effective July 1, 1993 by M.I. 40173 - April 13, 1993; paragraphs (a)(1), (a)(3) through (a)(6) amended by M.I. 40731 - March 8, 1994; paragraphs (a)(1) through (a)(3) and (a)(5) amended and (a)6) added by M.I. 40865 - June 14, 1994; paragraph (a) amended, paragraph (b) added and paragraph (c) amended and renumbered by M.I. 41468 - June 13, 1995; paragraph (a)(3) amended by M.I. 41652 - November 14, 1995; paragraph (a) amended by M.I. 41816 - March 12, 1996 to be effective January 1, 1997; paragraph (a)(1) amended by M.I. 42278 - February 11, 1997; paragraphs (a)(1) through (a)(4) amended and paragraph (a)(5) added by M.I. 42335 and 42336 - March 11, 1997; paragraphs (a)(1) and (a)(2) amended by M.I. 42608 - September 9, 1997; paragraphs (a) (1), (2), (3), (4), and (b) amended by M.I. 42870 - March 10, 1998; paragraphs (a) (1), (2), (3), (4), and (b) amended by M.I. 43354 - January 12, 1999; paragraphs (a) (1), (2), (3), and (4) amended by M.I. 43936 – March 14, 2000; paragraphs (a)(1), (2), (3), (4), and (5) amended by M.I. 44386 – March 13, 2001; paragraph (a) (1) and (2) amended, paragraphs (a) (3), (4), and (5) sub-paragraph (b) deleted, old paragraph (c) renamed (b), and new paragraphs (a) (3) and (c) added by M. I. 44812 - March 12, 2002; paragraph (a) (2) amended by M. I. 45249 - March 11, 2003; paragraph (c) amended by M. I. 45257 - March 11, 2003; paragraphs (a) (1), (2), (3) amended by M.I. 45690 – March 9, 2004; paragraph (c) amended by M. I. 45943 – October 12, 2004; paragraph (a) (1), (2), (3) amended by M. I. 46149 - March 8, 2005; paragraphs (a) (1) (2) (3) amended by M. I. 46593 – March 14, 2006; paragraph (a)(1)-(3) amended by M. I. 47064 – April 10, 2007; paragraph (a)(3) amended by M. I. 47259 – October 9, 2007; paragraphs (a)(1)(2) and (3) amended by M.I. 47422 – March 11, 2008; paragraphs (a)(1)(2) and (3) amended by M.I. 47859 – April 14, 2009; paragraph (a)(1) amended by M.I. 48232 – April 13, 2010; paragraphs (a)(1)-(3) amended by M.I. 49026 – April 10, 2012; paragraph (a)(2) amended by M.I. 49272 - December 11, 2012; paragraph (a)(1) amended, paragraph (a)(2) deleted and reserved, and paragraph (3) deleted by M.I. 49734 – April 8, 2014; amended paragraph (a)(1) sections covering "Tier 1 Supply Rate," and "Tier 2 Supply Rate" by M.I. 49952 - November 18, 2014; amended paragraph (a)(1) to reflect approved water rates effective January 1, 2017 and January 1, 2018 by M.I. 50438 – April 12, 2016.

§ 4402. Readiness-to-Serve Charge.

(a) The readiness-to-serve charge shall be set by the Board from time to time to recover the costs of emergency system storage and the cost of system conveyance capacity for peak and standby use not recovered by property tax revenue. The readiness-to-serve charge will be

allocated among the member public agencies beginning January 1, 2003, in proportion to the average of deliveries (including exchanges and transfers) through Metropolitan's system (in acre feet) to each member public agency during the ten-year period ending June 30, 2001; and thereafter as a ten-year rolling average; provided that Metropolitan sales of reclaimed water under the Local Projects Program, and Local Resources Program, groundwater under the Groundwater Recovery Program and deliveries under Replenishment and Interim Agricultural Water Service shall not be included in the water deliveries calculation.

(b) The readiness-to-serve charge shall be due monthly, quarterly or semiannually, as agreed upon by Metropolitan and the member public agency. If a standby charge is collected on behalf of a member public agency, the member public agency will be credited for the amount of net collections. This charge is subject to the provisions of Sections 4507 and 4508.

(c) The General Manager shall establish and make available to member public agencies procedures for administration of the readiness-to-serve charge, including filing and consideration of applications for reconsideration of their respective readiness-to-serve charge. The General Manager shall review any applications for reconsideration submitted in a timely manner. The General Manager shall also establish reasonable procedures for the filing of appeals from his determination.

M.I. 41468 - June 13, 1995; paragraph (b) amended by Resolution 8492 adopted by M.I. 41816 - March 12, 1996; paragraphs (b) and (e) amended by M. I. 44582 – August 20, 2001; paragraph (a) amended, paragraphs (b) and (c) deleted, paragraphs (d) and (e) renamed (b) and (c) respectively by M. I. 44812 - March 12, 2002; paragraph (a) amended by M. I. 45249 and M. I. 45257 - March 11, 2003; paragraph (a) amended by M. I. 45943 – October 12, 2004.

§ 4403. Capacity Charge.

(a) Beginning January 1, 2004, the capacity charge shall be payable by each member agency for system capacity based on the maximum summer day demand placed on the system between May 1 and September 30 for the three-calendar year period ending December 31, 2002, and thereafter for a rolling three-calendar year period.

(b) The capacity charge shall be due monthly, quarterly or semiannually, as agreed upon by Metropolitan and the member public agency.

M.I. 41468 - June 13, 1995; paragraphs (b) and (f) amended by M. I. 44582 – August 20, 2001; old Section deleted and renamed, new paragraphs (a)-(d) added by M. I. 44812 - March 12, 2002; paragraphs (a) and (b) amended by M. I. 45249 - March 11, 2003 and paragraphs (a) and (b) amended and paragraphs (c) and (d) deleted by M. I. 45257 - March 11, 2003; paragraph (a) amended by M. I. 45943 – October 12, 2004; Section title and paragraph (b) amended by M. I. 46148 - March 8, 2005.

§ 4404. Purchase Orders.

(a) The General Manager shall establish and make available to member public agencies the form of the Purchase Order and procedures for its administration. The General Manager shall establish a deadline by which all Purchase Orders shall be executed by member public agencies

that desire to enter into such agreements with the District. Following the deadline established by the General Manager, no member public agencies will be allowed to execute Purchase Orders.

(b) The term of the Purchase Orders shall be specified in the Purchase Order. All Purchase Orders in effect for the same time period shall be on substantially the same terms. All amendments to Purchase Orders require approval by the Board.

(c) Each member public agency executing a Purchase Order shall commit to purchase at least its Purchase Order Commitment during the term of the Purchase Order.

(d) Purchase Orders shall permit a member public agency to purchase up to 90 percent of its Base Period Demand at the Tier 1 Supply Rate for the term of the Purchase Order.

(e) All water deliveries under a Purchase Order shall be subject to the operational conditions and constraints contained in this Division. In addition, all billings and payments for such water shall be subject to the provisions of this Division in the same manner as other water delivered by Metropolitan.

M.I. 41468 - June 13, 1995; old Section deleted and renamed, new paragraphs (a)-(g) added by M. I. 44812 - March 12, 2002; paragraph (d) amended by M.I. 48800 – September 13, 2011; amended paragraphs (b), (d), and (e), deleted prior paragraphs (e) and (f), and renumbered prior paragraph (g) as paragraph (e) by M.I. 49952 - November 18, 2014.

§ 4405. Wheeling Service.

(a) Subject to the General Manager's determination of available system capacity, Metropolitan will offer wheeling service. The determination whether there is unused capacity in Metropolitan's conveyance system, shall be made by the General Manager on a case-by-case basis in response to particular requests for wheeling.

(b) The rates for wheeling service shall include the System Access Rate, Water Stewardship Rate and, for treated water, the Treatment Surcharge, as set forth in Section 4401. In addition, wheeling parties must pay for their own cost for power (if such power can be scheduled by the District) or pay the District for the actual cost (not system average) of power service utilized for delivery of the wheeled water. Further, wheeling parties shall be assessed an administration fee of not less than $5,000 per transaction.

M.I. 42335 - March 11, 1997; paragraph (a) amended, paragraphs (b) and (c) deleted, and new paragraph (b) added by M. I. 44812 - March 12, 2002.

Chapter 5

WATER SERVICE REGULATIONS - GENERAL

Sec.

4500. Adoption of Regulations
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4502. Liability and Indemnification
4503. Suspension of Deliveries
4504. Rates of Flow
4505. Estimates of Water Requirements and Schedules of Deliveries
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4507. Billing and Payment for Water Deliveries
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4509. Water Restricted to Use Within the District
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4512. Sales Subject to System and Water Availability
4513. Equal Opportunity Requirements
[4514. Repealed]
[4515. Repealed]
[4516. Repealed]
4517. Cooperative Storage Program
4518. Emergency Storage Program

§ 4500. Adoption of Regulations.

Subject to all applicable provisions of the Metropolitan Water District Act, as said Act may be amended from time to time, the following regulations shall govern the service of water by the District.

Section 322.1 based on Res. 7260 - May 12, 1970, amending Res. 3896 - August 18, 1950; amended by M.I. 33642 - March 10, 1981. Section 322.1 repealed and Section 4500 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4501. Obligation to Pay for Water Delivered.

(a) All water delivered through any service connection to a member public agency for use within the member public agency shall be supplied in accordance with the provisions of the Metropolitan Water District Act and the rules and regulations of the District governing such service, as set forth in Chapter 5. The District shall bill the member public agency for all water delivered through the service connection, and the member public agency shall pay the District for all water so delivered at the rate or rates and within the period from time to time fixed by the Board.

(b) In the event that any member public agency shall request in writing a delivery of water directly by the District into any distribution system owned by some other agency which serves

water within the corporate area of the member public agency, the member public agency shall be obligated to pay the District for all water so delivered at the rates and under the conditions from time to time fixed by the Board; and such delivery into such other system shall constitute delivery to such member public agency for the purpose of these regulations.

(c) Member public agency system losses of District-supplied water are losses that are inherent in the operation of a water distribution system. These include losses occasioned by evaporation, seepage, spillage, leakage, pipeline failure, or system testing. Such losses shall be charged to a member public agency in direct proportion to the classes of service in which they occur and at the rates prescribed in Section 4401 for water sold and delivered for each such class of service. Such system losses shall not affect a member public agency's obligation to sustain an interruption or reduction in the delivery of water as set forth in this Code.

Section 322.2 based on Res. 7260 – May 12, 1970, amending Res. 3896 – August 18, 1950; amended by M.I. 33642 – March 10, 1981. Section 322.2 repealed and Section 4501 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; paragraphs (a) and (c) amended by M.I. 40865 - June 14, 1994; paragraph (a) amended by M.I. 41468 - June 13, 1995; paragraph (c) amended by M.I. 42278 - February 11, 1997; Paragraph (c) amended by M. I. 44005 - May 17, 2000; amended paragraph (a) by M.I. 50323 - December 8, 2015.

§ 4502. Liability and Indemnification.

Neither the District nor any of its officers, agents, or employees shall be liable for the control, carriage, handling, use, disposal, or distribution of water supplied or delivered by the District to a member public agency after such water has been delivered to such member public agency; nor for claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal, or distribution of such water beyond the point of such delivery; and the member public agency shall indemnify and hold harmless the District and its officers, agents, and employees from any such damages or claims of damages, and shall reimburse the District for costs of repair of the District's facilities and other damages resulting from the operations of the member public agency. Neither the member public agency nor any of its officers, agents, or employees shall be liable for the control, carriage, handling, use, disposal, or distribution of water prior to such water being delivered to the member public agency; nor for claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal, or distribution of such water prior to its delivery to such member public agency, excepting, however, claims by the District for costs of repair to the District's facilities and other damages resulting from the operations of the member public agency; and the District shall indemnify and hold harmless the member public agency and its officers, agents, and employees from any such damages or claims of damages, except claims by the District for costs of repair of the District's facilities and other damages resulting from the operations of the member public agency.

Section 322.3 based on Res. 7260 – May 12, 1970, amending Res. 3896 – August 18, 1950; amended by M.I. 33642 – March 10, 1981; amended by M.I. 34826 – August 17, 1983. Section 322.3 repealed and Section 4502 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; amended by M. I. 44812 - March 12, 2002.

§ 4503. Suspension of Deliveries.

(a) Whenever repairs or maintenance of the District's system, in the opinion of the General Manager of the District, shall require suspension of delivery of water at any point or points, such delivery may be suspended without liability on the part of the District; provided, that except in cases of emergency, as determined by the General Manager, notice of such suspension of service shall be given to the affected member public agency in advance of such suspension. Metropolitan will make a concerted effort to notify and work with member public agencies regarding all scheduled interruptions. The District will schedule non-emergency interruptions for the low demand months of the year, typically October through April, in coordination with the member public agencies.

(b) Each member agency shall have sufficient resources such as local reservoir storage, groundwater production capacity, system interconnections or alternate supply source to sustain:

(1) A seven-day interruption in Metropolitan deliveries from raw and treated water distribution facilities based on average annual demands of the affected facility.

(2) For service connections installed or modified after December 31, 2008 on raw water conveyance facilities, a seven-to twenty-one-day interruption in Metropolitan raw water deliveries based on average annual demand of the affected facility.

If a member public agency has been provided with a sixty (60) day notice of when an interruption in service is to occur, the member public agency shall be responsible for and reimburse direct costs, excluding labor costs, incurred by Metropolitan in the event that a scheduled non-emergency interruption is postponed or cancelled at the request of the member public agency as a result of insufficient local resources, and the District agrees to such cancellation or postponement. Direct costs shall be determined by Metropolitan's General Manager, in consultation with the affected member agency. These direct costs shall be applied to the member public agency's water invoice following cancellation or postponement of the shutdown.

(c) Except in cases of emergency, the District, working with the member agencies, will produce a shutdown schedule each September for the annual shutdown season from October through April. The District will also develop a three-year shutdown schedule, which will give notice of the proposed shutdowns greater than seven days at least one-year in advance.

Section 322.4 based on Res. 7260 – May 12, 1970, amending Res. 3896 – August 18, 1950; amended by M.I. 33642 – March 10, 1981. Section 322.4 repealed and Section 4503 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; amended by M.I. 42278 - February 11, 1997; paragraph amended by M. I. 44812 - March 12, 2002; paragraph amended by M. I. 45943 – October 12, 2004; paragraphs assigned (a), (b), (c), & (d) designations and amended by M. I. 45988 – November 9, 2004; paragraph (b) amended, (b)(1) and (2) added by M. I. 47730 - December 9, 2008; deleted paragraph (d) by M.I. 50323 - December 8, 2015.

§ 4504. Rates of Flow.

Provisions updated to reflect the actions of the Board of Directors through its 4/12/2016 meeting.

(a) Within any 24-hour period, changes in rate of flow through any service connection serving a member public agency will be limited to ten (10) percent above and below the previous 24-hour average rate of flow except when a specific request for a change in rate that would exceed such limitations has been made to the District; such requests (1) shall be made at least 6 hours in advance of the time such change is to be made; (2) shall be approved by the General Manager only if in his judgment the change would not adversely affect the District's ability to apportion available water equitably. The General Manager is hereby authorized to reduce the maximum obtainable rate of flow at any service connection where this regulation is being violated and in the event the capacity of the distribution system is insufficient to accommodate the above mentioned daily fluctuations in delivery rate, the General Manager shall regulate the rates of flow at any or all service connections so as to assure equitable service to all agencies. However, the District will endeavor to meet all reasonable demands for service so long as comparable service can be provided to all member public agencies being served from a related section of the District's distribution system.

(b) When flow through a service connection serving a member public agency is reduced below ten (10) percent of the requested or actual maximum design capacity of the meter, whichever is less, at that connection during a period when the service connection turnout valve is in the open position, the member public agency will be charged as though a flow equaling ten (10) percent of the capacity of such meter were being delivered, as determined by the General Manager, unless the District has been advised by the member public agency that no deliveries are required at that connection for a specified period. This Section 4504(b) shall not apply to those service connections which are not connected to pressure pipelines of the District or to those service connections being operated intermittently in a manner determined by the General Manager to be of benefit to the District under conditions such that when flow does occur at these service connections it exceeds ten (10) percent of the meter capacity. The General Manager shall have the power to waive the requirements of this Section 4504(b), with respect to any meter where the agency served by the meter is doing everything within its capability, as determined by the General Manager, to adjust its facilities and operations so as to be able to take delivery at rates of flow not less than ten (10) percent of the requested or actual maximum design capacity of the meter, whichever is less, at that connection during a period when the service connection turnout valve is in the open position.

(c) When flow through a service connection serving a member public agency is increased above the actual maximum design capacity of the meter, the member public agency will be charged as though a flow equaling one hundred and twenty-five (125) percent of the capacity of such meter were being delivered, as determined by the General Manager.

(d) The General Manager shall have the power to waive the provisions of Sections 4504(a), 4504(b) and 4504(c) for a specified period with respect to any service connection if in his judgment such a waiver will serve to accomplish the current objectives of the District and will not adversely affect the operation of the District's distribution system or impair its ability to provide service to all member public agencies.

Paragraph (b) [formerly Section 322.5.2] based on Res. 7241 - February 10, 1970 and Res. 7260 - May 12,1970; paragraph (a) [formerly Section 322.5.1] based on Res. 7260 - May 12, 1970 amending Res. 3896 - August 18, 1981; paragraph (c) [formerly Section 322.5.3] added by M.I. 31817 - June 14, 1977; section amended by M.I. 33642 - March 10, 1981. Section 322.5 repealed and Section 4504 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; paragraph (a) amended, paragraph (c) added and paragraph (d) renumbered and amended by M.I. 42278 - February 11, 1997.

§ 4505. Estimates of Water Requirements and Schedules of Deliveries.

(a) General. - Before July 1 of each year, each member public agency shall furnish the District, in form provided by the District, with an estimate of the amounts of water to be furnished to such member public agency by the District. These estimates will be used by the District in planning the construction needed to complete the District's ultimate aqueduct and distribution system; in planning the future operation of such system; and in preparing notices for submission to the State Department of Water Resources which will be used by the State to order power for pumping on the State Water Project.

(b) Contents of Estimates

(1) Each estimate furnished by a member public agency pursuant to Section 4505(a) shall contain, as a minimum, for each service connection and for each month of the year beginning with the succeeding July 1, and for the entire member public agency for each month of the succeeding four years, the following information:

(i) The quantity of water to be delivered by Metropolitan to the member public agency in full service.

(ii) With regard to water estimated to be delivered in full service, the quantity of water to be used for seawater barrier groundwater replenishment.

(iii) With regard to water estimated to be delivered in full service, the quantity of water to be used for:

(aa) groundwater replenishment

(bb) reservoir replenishment.

(2) The estimate shall constitute the member public agency's request for deliveries for the first of the five years covered therein.

Section 322.6 based on Res. 7260 – May 12, 1970; amended and paragraph (b) [formerly Section 322.6.2] added by M.I. 33642 – March 10, 1981] effective July 1, 1981; paragraph (a) [formerly Section 322.6.1] amended by M.I. 36374 - November 18, 1986. Sections 322.6.1 and 322.6.2 repealed and Section 4505 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; paragraph (b)(iii) added and previous paragraph (b)(iii) renumbered to (b)(iv) and amended by M.I. 37764 - July 11, 1989; paragraphs (b)(1)(ii) and (iv) amended and subparagraph (cc) repealed by M.I. 40865 - June 14, 1994; paragraph (a) amended by M.I. 41468 - June 13, 1995; paragraphs (a) and (b)(1) amended by M.I. 42278 - February 11, 1997; Paragraphs ((b) (1) (ii), (iii); (aa), and (bb) amended by M I. 44005 - May 17, 2000; sub-paragraph(aa) amended by M. I. 44812 - March 12, 2002; sub-paragraph (iii) deleted and renumbered, sub paragraphs (aa) and (cc) amended, and (dd) added by M. I. 45249 - March 11, 2003; amended paragraph (a), deleted former paragraphs (b)(1)(ii), (b)(1)(iv)(bb), and

(b)(1)(iv)(dd), renumbered former paragraph (b)(1)(iii) to current paragraph (b)(1)(ii), renumbered and amended former paragraph (b)(1)(iv) to current paragraph (b)(1)(iii), renumbered and amended former paragraph (b)(1)(iv)(aa) to current paragraph (b)(1)(iii)(aa), renumbered and amended former paragraph (b)(1)(iv)(cc) to current paragraph (b)(1)(iii)(bb) by M.I. 50323 - December 8, 2015.

§ 4506. Metering of Water.

All water delivered by the District shall be metered. Meter readings shall be made on or about the last day of each calendar month for billing purposes. Meters and control valves on water lines of the District shall be owned and operated by the District. Any member public agency may have any meter through which water is served from the District's facilities to any area within such member public agency tested by the District at any time. Any member public agency affected shall have the right to be represented by a qualified observer at and during any such tests. In the event that any such test shall disclose an error exceeding 2 percent, an adjustment shall be made in charges made to the affected member public agency, covering the known or estimated period of duration of such error, but in no event exceeding six months, and the expenses of such test shall be borne by the District; otherwise, such expense shall be borne by the member public agency requesting such test.

Section 322.7 based on Res. 7260 - May 12, 1970; amended by M.I. 33642 - March 10, 1981. Section 322.7 repealed and Section 4506 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4507. Billing and Payment for Water Deliveries.

(a) **Timeframe for Billing and Payment.** Except as noted herein below, invoices shall be mailed electronically, or, if requested by the member agency, by hardcopy via United States mail, not later than the tenth day of the month following delivery to a member public agency. Each such invoice shall indicate the date of mailing and the date on which the payment thereunder becomes delinquent and shall show the total amount of water delivered for each class of service, the charges for water sold and delivered for each class, the readiness-to-serve and capacity charges, as applicable, and the total amount due and owing, all as determined by the General Manager. Payment of the amount shown on any such invoice shall be due on the last business day of that month and shall be delinquent if not received by the Treasurer of the District before the close of crediting activity on the last business day of the first month following such date of mailing. When making any such payment the member public agency shall specify the invoice or invoices to which the payment shall be credited by the District.

(1) For purposes of Section 4507(a), "business day" shall mean any day other than a Saturday, a Sunday, or a Holiday (as defined in Section 1106).

(2) For purposes of Section 4507(a), "received by the Treasurer of the District" shall mean receipt either (1) in the office of the Treasurer or (2) by crediting pursuant to advance agreement with the Treasurer to the District's general demand account at the District's principal depository bank, in such form that the funds are immediately available for investment or other use or disposal by the District.

(3) For purposes of Section 4507(a), "crediting activity" shall mean either (1) 2:00 p.m. if payment is delivered to the office of the Treasurer, or (2) the cutoff time for crediting by the District's principal depository bank of that day's transactions if payment is initiated by wire transfer, automated clearinghouse transfer, interbranch transfer, direct deposit, or by other means pursuant to advance agreement with the Treasurer.

If, under advance agreement with the Treasurer, a member agency has authorized payment of any invoice by automated clearinghouse transfer initiated by the Treasurer, the Treasurer shall initiate such transfer for processing two business days prior to the business day on which such payment shall be delinquent. Failure of such transfer shall not relieve such member agency from liability for such payment or charges in the event such payment should become delinquent, except as specifically provided under advance agreement with the Treasurer.

(b) **Full Service and Emergency Storage Program Facility.** In cases where water through a particular facility is delivered during any month for full service or Emergency Storage Program Service, the bill for water delivered in such month will be prepared by applying the rates for water sold and delivered in full service to the total quantity of water delivered. If the member public agency desires to receive credit for water used in Emergency Storage Program Service, the facts concerning the quantities of water so used must be certified to the District via the District's electronic certification and billing system by an authorized user for the member public agency purchasing such water as provided for in Section 4507 (c). The amount of such credits shall be based on the difference in water rates in effect at the time the water is used.

(c) **Late Certifications.** Based on available information, the District will notify a member agency for any certification that it has not received, if known, three months from the end of the month for which the agency would normally certify. No certification received after six months following the end of any month in which such a credit is claimed will be accepted. Certifications must be received by Metropolitan before 3:30 p.m. on the third working day after the end of the month to receive credit for any preceding month on the next bill, subject to the provisions with respect to late certifications in this Section. This Section applies to all cases where a certification is required to receive a credit, whether or not specifically named in this Section, unless otherwise provided by this Code.

(d) **Determination by General Manager as to Type of Delivery.** In the event the respective quantities of water sold and delivered in any month on order of any member public agency for use therein in any water program or contract requiring certification, are not determinable to the satisfaction of the General Manager in time for preparing regular monthly bills, then billing and payment for all water sold and delivered in such month to such member public agency shall be made at the rates prescribed for water used in full service in Section 4401(a)(1) hereof. Upon the determination by the General Manager of the correct quantities of water sold and delivered and used in any water program or contract requiring certification, any adjustment which is necessary to give effect to the applicable credit for the water used in any water program or contract requiring certification, shall be made by application of credits on subsequent purchases of water from the District by such member public agency. Such

adjustments shall not be made in cases where a claim for the applicable credit is not submitted within the period provided in Section 4507(c).

(e) **Obligation to Pay for Appropriate Class of Service.** If water has been sold and delivered at the rates prescribed for water sold in any water program or contract and appropriate certifications have been submitted for the water so used, but the water has in fact been used in full service or another class of service, the member public agency shall be obligated to pay the difference between the rates prescribed for water sold for the applicable water program or contract and the rates prescribed for the class of service actually used.

(f) **Submission of Documentation by Member Agency.** With respect to water sold and delivered at the rates prescribed for water sold under water programs or contract (unless otherwise specified in an agreement with the District), original documentation supporting the use of such water as certified must be submitted no later than December 31 following the end of the fiscal year for which a certification is submitted, unless otherwise specified in an agreement with the District. If the documentation is not submitted by December 31 following the end of the fiscal year for which a certification was submitted, an agency will receive a late penalty of $2,500. If the agency does not submit documentation by February 28/29 following the end of the fiscal year for which a certification was submitted, it shall be conclusively presumed that:

(1) The water sold from the District was used for full service, and the District's next monthly billing shall reflect such adjustment; or

(2) The yield was not produced as certified and the District's next monthly billing shall reflect such adjustment.

This provision will apply individually to each program or agreement that an agency or sub-agency participates in separately.

(g) **Review Process.** With respect to water sold and delivered at the rates prescribed for water sold under water programs or contract (unless otherwise specified in an agreement with the District) the District will complete its review within twelve months from date of receipt of the original supporting documentation.

(1) Should the District not complete its review within twelve months of the submittal of all source documentation, the review will be considered complete and the certifications final.

(2) When the review is completed, the District will notify the member agency of its initial findings for its comments. The member agency will provide its comments within 60 days. Metropolitan staff and the agency will work together to reconcile any differences.

(3) If the member agency and Metropolitan staff cannot reconcile the differences, Metropolitan's Water System Operations' Group Manager has the responsibility to consult with the member agency and make a final ruling, subject to the General Manager's oversight. If the

ruling is unsatisfactory to the agency, it can be appealed to Metropolitan's Finance and Insurance Committee.

(4) If the member agency does not provide further documentation correcting Metropolitan staff findings within the 60 day comment period as specified in (g) (2), then it shall be conclusively presumed that the District's findings are correct and the District's next monthly billing shall reflect such adjustment.

(h) **Discovery of Mistakes or Errors.** In the event a mistake or error is discovered in a District water sales record, the General Manager shall initiate appropriate corrective action. No mistake or error made more than three years prior to its discovery shall be corrected unless otherwise specified in an agreement with the District. In the event a mistake or error is discovered by a member agency in its water sales record or certifications, no mistake or error made more than three years prior to its discovery shall be corrected unless otherwise specified in an agreement with the District.

(1) A District water sales record shall include a water billing invoice, or district invoice for other water-related charges.

(2) If the District finds the mistake or error, the discovery of the mistake or error shall be documented in writing to the member agency. The date of discovery for corrective action purposes shall be the date notice is sent to the member agency.

(3) If the member agency discovers the mistake or error, the discovery of the mistake or error shall be documented in writing to the District by either a revised certification form or letter, whichever is applicable. The date of discovery for corrective action purposes shall be the date the certification or letter is received by the District.

(4) If an incorrect invoice has been issued to a member public agency, the General Manager shall notify the affected agency of any adjustment and the manner of making any required credit or charge, neither of which shall bear interest.

(5) Mistakes or errors shall also include but are not limited to mistakes or errors in metering or recording deliveries to member agencies, entry or calculation errors in fixed charges, discovery of errors in either a member agency or sub-agency submitted certification(s), or processing of a certification(s) for the Local Projects Program, the Local Resources Program, the Groundwater Recovery Program, Conservation Credit Program, or any other water management program or storage programs or agreements unless specified otherwise in the contract.

(6) Any mistakes or error for a fiscal year period that is less than five acre-feet cumulative by agency or sub-agency, by program or agreement, shall be waived.

(i) **Rate Change.** In the event that deliveries of water are made by the District to member public agencies over a billing period during which the District's water rates change, the General Manager may cause the meters recording deliveries of water during such period to be

read at the end of the period and the statement of charges for such deliveries of water may be based on a proration between the previous and new water rates for the periods of time during which each were in effect as determined by the General Manager.

Section 322.8 based on Res. 7291 – October 13,1970; amended, paragraphs (c) through (h) [formerly Sections 322.8.3 through 322.8.8] added, and paragraph (i) [formerly Section 312.9] amended and renumbered by M.I. 33642 – March 10, 1981; paragraphs (c) and (f)(2) amended by M.I. 33691 – April 14, 1981; paragraph (a) [formerly Section 322.8.1] amended and paragraphs (a)(1) through (a)(3) added by M.I. 34215 – May 11, 1982; paragraph (d) amended by M.I. 35430 – December 11, 1984; paragraph (a) amended by M.I. 36374 - November 18, 1986. Section 322.8 repealed and Section 4507 adopted by M.I. 36464 – January 13, 1987, effective April 1, 1987; paragraph (a) amended by M.I. 37271 - August 23, 1988; amended by M.I. 37764 - July 11, 1989; paragraph (c) amended by M.I. 39082 - July 9, 1991; paragraph (f) amended by M.I. 40389 - August 24, 1993; paragraphs (a), (a)(2) and (3) amended by M.I. 40463 - September 21, 1993; paragraphs (c), (d), (f) through (i)(1) and (2) and (j), (k) and (l) amended by M.I. 40865 - June 14, 1994; paragraph (a) amended by M.I. 41468 - June 13, 1995; paragraphs (e) and (f) amended by M.I.41617 - October 10, 1995; paragraphs (a), (b), (d)-(m) amended by M.I. 42278 - February 11, 1997; Titles added to paragraphs (a)-(n), original paragraphs (b)-(l) renumbered and amended, new paragraphs (k)-(m) (1)-(6) added, and paragraph (m) amended and (m) (1)-(6) added by M. I. 44005 - May 17, 2000; paragraph (l)(3) amended by M.I. 44582 – August 20, 2001; paragraphs (a) and (f) amended and new paragraph (o) added by M. I. 44812 - March 12, 2002; paragraphs (a), (d), (e), (i), (j), (k), (l), (m)(5) amended by M. I. 45249 - March 11, 2003; paragraphs (e), (i), and (j) amended by M.I. 45941 – October 12, 2004; paragraph (a) amended by M. I. 46148 - March 8, 2005; paragraph (l)(3) amended by M. I. 46983 - February 13, 2007; paragraphs (c), (i)(3), (j) amended, paragraph (g) added and renumbered by M. I. 47259 - October 9, 2007; paragraphs (l), (m), (n)(1)-(6), (o), (p) amended by M.I. 47672 – October 14, 2008; paragraphs (c), (e), (i)(3), (j) amended by M.I. 47998 - August 18, 2009; paragraph (3) amended by M.I. 48534 - January 11, 2011; deleted paragraph (p) by M.I. 49952 - November 18, 2014; deleted former paragraphs (b), (c), (d), (g), (h), and (i), renumbered former paragraph (e) to current paragraph (b), renumbered former paragraph (f) to current paragraph (c), renumbered former paragraph (j) to current paragraph (d), renumbered former paragraph (k) to current paragraph (e), renumbered former paragraph (l) to current paragraph (f), renumbered former paragraph (m) to current paragraph (g), renumbered former paragraph (n) to current paragraph (h), renumbered former paragraph (o) to current paragraph (i), amended paragraphs (b), (d), (e), (f), (g), and (h) by M.I. 50323 - December 8, 2015.

§ 4508. Additional Payment and Reporting in the Event of Delinquency in Payment for Water.

In the event any member public agency shall be delinquent in the payment for water delivered and other charges as invoiced by the District, an additional charge equal to two (2) percent of such delinquent payment for each month or portion thereof that such payment remains delinquent shall be assessed, and the member public agency shall pay such charge to the District in addition to the amount of such delinquent payment. Notwithstanding the above, if the total period of delinquency does not exceed five (5) business days, the additional charge shall be equal to one (1) percent of such delinquent payment. Invoices for delinquencies including additional charges shall be mailed not later than the tenth day of each month. In the event any member public agency shall be delinquent for more than thirty (30) days in the payment for water, such delinquency shall be reported by the General Manager to the Board of Directors of the District at its next meeting. The Board, in its discretion and upon such other conditions as it may prescribe after giving the member public agency a reasonable opportunity to be heard, may order the termination of service to such member public agency until all delinquent payments, including additional charges, are made to the District or may authorize such other actions as may be legally available to effectuate collection.

Section 322.9 based on Res. 7291 - October 13, 1970; amended by M.I. 33642 - March 10, 1981; amended by M.I. 34215 - May 11, 1982 effective July 1, 1982. Section 322.9 repealed and Section 4508 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; amended by M.I. 41468 - June 13, 1995.

§ 4509. Water Restricted to Use Within the District.

In order to insure that water served by the District is not used for the direct or indirect benefit of areas outside the District, the amount of water served by the District's facilities that shall be made available to any member public agency shall be limited to an amount equal to that required for uses within the area of the District lying within, or served by or through, such member public agency. No area lying outside the boundaries of the District shall be served with water from the District's facilities, except as service to such area may, when found to be such by the Board, be a reasonably unavoidable incident to the service of such water within the District, and under such circumstances the amount of water served by the District that shall be made available to any member public agency shall be limited to an amount equal to that required for uses within the area of the District lying within, or served by or through, such member public agency. Any question of fact involved in the application of this Section 4509 shall be finally determined by the Board, after giving the member public agency concerned adequate opportunity to present pertinent factual evidence and the views of such member public agency.

Section 312.10 based on Res. 7260 - May 12, 1970; amended by M.I. 33642 - March 10, 1981. Section 322.10 repealed and Section 4509 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4510. Application of Regulations.

The provisions hereof shall not be applicable to service of water to the United States of America, or to any board, department or agency thereof, to the State of California, or to the service of surplus water under contract made in accordance with statute, but such service shall be controlled by the applicable contract.

Section 312.11 based on Res. 7260 - May 12, 1970; amended by M.I. 33642 - March 10, 1981. Section 322.11 repealed and Section 4510 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4511. Notices.

All notices and communications from member public agencies of the District, relating to the service of water or the administration of these regulations by the District, shall be addressed to the General Manager, Post Office Box 54153, Los Angeles, California 90054.

Section 312.12 based on Res. 7260 - May 12, 1970; amended by M.I. 33642 - March 10, 1981. Section 322.12 repealed and Section 4511 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4512. Sales Subject to System and Water Availability.

The District will endeavor to satisfy all requests for water sales and deliveries made by the member public agencies. Deliveries shall be subject to operational, supply or demand

conditions, as determined by the General Manager. The District will develop annual operating plans in coordination with member public agencies. The annual operating plans shall be developed to meet requested deliveries under anticipated conditions. In the event of adjustments to deliveries due to changes in planned operations or in supply or demand conditions, the District and the member public agencies will communicate and coordinate operations.

M.I. 36811 - September 22, 1987; amended by M.I. 40865 - June 14, 1994; amended by M.I. 42278 - February 11, 1997; amended by M.I. 50323 - December 8, 2015.

§ 4513. Equal Opportunity Requirements.

Pursuant to contract between agencies of the United States and the District, any delivery of water by the District to a member public agency shall be subject to the following provisions. For the purposes of these provisions only, the member public agency is therein referred to as "Contractor."

(a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Federal Contracting Officer setting forth the provisions of this nondiscrimination clause.

(b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without discrimination because of race, color, religion, sex, or national origin.

(c) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Federal Contracting Officer, advising said labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, as amended, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(e) The Contractor will furnish all information and reports required by said amended Executive Order and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the

Federal Contracting Officer and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part, and the Contractor may be declared ineligible for further Federal Government contracts in accordance with procedures authorized in said amended Executive Order, and such other sanctions may be imposed and remedies invoked as provided in said amended Executive Order, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The Contractor will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of said amended Executive Order, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

M.I. 36781 - August 18, 1987.

[§ 4514 repealed by M.I. 50323 - December 8, 2015.]

[§ 4515 - M.I. 38295 - June 12, 1990; repealed by M.I. 41468 - June 13, 1995.]

[§ 4516 – M. I. 40969 – August 19, 1994; repealed by M. I.44812 - March 12, 2002.]

§ 4517. Cooperative Storage Program.

(a) The Cooperative Storage Program that provides a means for coordinating storage capacity available to the District's member public agencies, with the District's annual carryover storage needs as those needs are determined under Subsection 4206(c). The purpose of the Program is to place additional amounts of imported water in local storage to improve regional water supply reliability within the District's service area, in a manner that will recognize local costs and risks of participating in the program, but will not adversely impact either the District's finances or the member public agencies' ability to participate in the Replenishment Service Program.

(b) Storage Allocation - The General Manager shall allocate needed storage by reservoir and by groundwater basin to optimize the availability and usefulness of the storage to the District; and shall administer the Program so that, in any fiscal year, Program water in storage

shall be accessible to offset demands on the District that year by the participating member public agency pursuant to subsection (h).

(c) Availability of Water for Storage - The General Manager may make water available during the period May 1 through September 30, for storage under the Cooperative Storage Program, upon notice to the respective participating member public agency, subject to a determination that the storage will increase the District's ability to receive imported water supplies.

(d) Application for Participation - Member public agencies may apply for participation in the Cooperative Storage Program by filing a written application containing at least the following:

(1) A verified statement that the member public agency will comply with the requirements of this section.

(2) A water supply and demand estimate based on historical data to ensure that:

(i) The agency's participation in the Program will not offset its firm purchases of water from the District, and

(ii) The agency will store additional imported District water.

(iii)The estimate may be updated if conditions change, provided the updating is first agreed to in writing by the agency and the District.

(3) A proposal for placing water provided by the District under this Program in storage available to the member public agency, and for administering that storage pursuant to this Section.

(4) An estimate of any expected losses of Program water while that water is in the proposed storage, and the method of estimating those losses.

(5) Evidence of compliance with the California Environmental Quality Act prior to delivery of imported water for placement in Program storage.

(6) If more than one member public agency overlies a common groundwater basin, the overlying member public agencies may file a joint application, with each such agency providing a separate water supply and demand estimate for its respective service area pursuant to subsection (d)(2) and any other separate information the General Manager may require.

(e) Approval for Participation - The General Manager shall approve an application for participation in the Program upon determination that it is consistent with the requirements of this section. The General Manager shall approve the application in writing which shall include a monthly estimate of total demand, water purchased from Metropolitan, available local supplies,

and the maximum quantity of District water which shall qualify for storage under the Program, and those figures shall be approved by signature of a duly authorized representative of the participating member public agency prior to storage of water under the Program. Any later modification to said figures must be approved by both parties in writing. The application of any modification shall not be effective until approved in writing. The District shall conduct end-of-the-year verifications of stored water.

(f) Storing Process

(1) The District will deliver at its cost, available imported water to the respective participating member public agency at its appropriate District service connection, for Program storage by direct or in-lieu methods, following verbal or electronic acceptance by that agency. This delivery shall be deemed to be a Cooperative Storage Program sale by the District to the member public agency as defined in Section 4118, subject to the payment requirements of subsection (i) and (j) of this Section.

(2) The agency will, at its cost, cause the water to be placed in storage in a manner that meets all applicable storage requirements; and shall warrant that the stored water shall not be withdrawn or used until after the District releases the stored water pursuant to this Section.

(3) Program water delivered to a member public agency shall not offset a firm water sale of District Water by that agency. If a participating member public agency's firm water purchases from the District on a monthly basis during the May through September period are less than the District's firm water sales on a monthly basis during the same period in any one of the last five years, the agency must clearly demonstrate to the District, in writing, that such reduction occurred due to the availability of unexpected local water supplies. Any resulting change in the baseline established pursuant to Subsection (e) shall be approved in writing by the General Manager prior to becoming effective. Should the agency fail to make the required demonstration, the District shall bill the agency at the firm water rate for that portion of Cooperative Storage water delivered which will bring the firm water sales up to the agreed base amount of firm water for the month(s) in question.

(g) Storage Accounting

(1) Each participating member public agency shall maintain a Program storage account for Program water it stores, which shall account for monthly deliveries, releases, and storage losses approved by the District, if any, and other information which the General Manager shall deem necessary.

(2) The District shall bear reasonable and equitable losses of stored water provided that the General Manager approves the respective member public agency's justification of the loss criteria prior to placement of water into storage and shall consider those losses in allocating Program storage. Otherwise the District shall not bear any loss of stored water.

(3) Water stored under this Program shall be stored by a participating agency in such a manner as to assure that such water can be produced by that agency when released by Metropolitan. Program water delivered to a member public agency for storage shall be considered local water produced in that year for purposes of Replenishment Service.

(h) Release of Stored Water - The General Manager shall release stored Program water to the participating member public agency in which it is stored under the following criteria:

(1) Water Delivered to Storage Prior to 1995

(i) In an fiscal year when Replenishment Service deliveries are available, the General Manager may release, up to half of the Program water stored by the respective member public agency, in place of the agency's request for delivery of Replenishment Service through the District's distribution system, except for conditions described in provisions (iv) and (v) of this subsection;

(ii) In a fiscal year in which Replenishment Service or Full Service deliveries have been suspended, the General Manager shall release, and the participating member public agency shall accept, up to half of the Program water stored by the respective public agency, to the extent the agency requests that release, except for conditions described in provisions (iv) and (v) of this subsection;

(iii) During an emergency such as an earthquake, when District water service is interrupted, the General Manager shall release up to all stored Program water stored by the respective member public agency, to the extent of the interruption in water service and that the agency requests that release;

(iv) When the Program water stored by the respective member public agency is less that ten percent of the agency's average annual purchase of Replenishment Service, whichever is applicable, deliveries for the prior four years, the General Manager may release all of the Program water stored by the agency;

(v) In any fiscal year during which a participating member public agency's Replenishment Service or Program water release request is less than its average annual purchase of Seasonal Storage Service or Replenishment Service, whichever is applicable, of the prior four years, the General Manager may release the Program water stored by the respective member public agency in combination with Replenishment Service sales up to the agency's four-year average Seasonal Storage Service or Replenishment Service purchase. The District shall not release more than half of the Program water stored by the respective member public agency for this purpose and shall provide the agency with a 90-day advance notice of the release.

(2) Water Delivered to Storage After 1994

(i) The General Manager may release in a fiscal year up to one-third of the total amount of Program water placed in storage by a respective member public agency in place of that agency's request for delivery of water from the District's distribution system or for Replenishment Service, in order to fill Diamond Valley Lake, meet operational requirements, or reduce or eliminate shortages. Program water used to reduce or eliminate shortages, or for operational requirements may be released during any ten months selected by the General Manager during a twelve-month period from the time of release. Program Water may be released at any time in place of the agency's request for Replenishment Service.

(ii) Upon release of Program water by District, the participating member agency shall furnish to District, within 60 days, water supply and demand data based on historical information sufficient to document that it has produced the amount of Program water released to it.

(iii) The General Manager shall release stored Program water to the respective member public agency no later than ten years after delivering it to that agency for storage.

(iv) If a member public agency receives delivery of Program water for storage after 1994, any Program water that agency has stored in previous years shall also be subject to the release provisions of this Subsection (h)(2).

(v) Participating Member Public Agencies may transfer Program water they have placed into storage under the Program into other long-term water storage programs the District may develop as part of its Integrated Resource Plan under mutually agreeable transfer terms, executed in writing by both parties.

(i) Payment

(1) The participating member public agency shall pay the District's incremental costs of delivering Program water for storage plus interest at the average yield on the District's investment portfolio, from the date of delivery to the member public agency to the date of the invoice. Pursuant to the provisions of Section 4507, the District will invoice the member public agency on or about July 10 of the calendar year following the year in which the water is delivered.

(2) At the time the General Manager releases stored Program water to the respective participating member public agency the District shall invoice the respective participating member public agency pursuant to the provisions of Section 4507, at the applicable treated or untreated Replenishment Service rate in effect when the respective Program water was placed in storage, less any previous payment for the incremental costs of delivering the water for storage (but not including credit for the interest required by Subsection (i)(1)).

(3) Water released from storage to the participating member public agency shall be the oldest water then in storage.

(4) Readiness-to-Serve Charge Treatment.

(i) Program water delivered to storage prior to April 12, 1994 shall be exempted from the Readiness-to-Serve charge determination. Those charge determinations shall be applied to water delivered to storage after that date, except as applied in (ii) below, when the stored water is released to the participating member public agency.

(ii) The Readiness-to-Serve charge for Program water delivered for storage in 1995 shall be $36 per acre foot and will be paid monthly as the water is released to the member public agency.

(j) Penalty - A participating member public agency shall pay the applicable treated or untreated Full Service water rates for Program water the District delivers to it for placement in storage, to the extent it fails to comply with all the requirements of this Section.

(k) Indemnification - Participating member public agencies shall indemnify and defend the District, its employees, officers and directors for any injuries or damages that may be caused as a result of placing Program water in storage, storage itself, or storage releases and related withdrawal or use of Program water.

M.I. 40969 - August 19, 1994; paragraphs (a) through (i)(4)(ii) amended and renumbered, paragraph (k) repealed and paragraph (l) renumbered by M.I 41404 - May 9, 1995; paragraphs (h) and (j) amended by M.I. 42278 - February 11, 1997; paragraphs (f) and (h) (i) amended by M.I. 44005 - May 17, 2000; paragraph (i) (1) and (i) (4)(i) (ii) amended by M. I. 44812 - March 12, 2002; paragraphs (a), (g)(3), (h), (h)(i), (iii)-(v), (2)(i), (iv), and (i)(2) amended by M. I. 45249 - March 11, 2003.

§ 4518 Emergency Storage Program.

(a) The Emergency Storage Program is for the purpose of delivering water for emergency storage purposes. A member public agency may request delivery of water under the Emergency Storage Program. The minimum delivery of water for emergency purposes pursuant to any request is 10 acre-feet. Deliveries under the Emergency Storage Program, in the aggregate, are limited to 100,000 acre-feet annually, subject to available surplus and capacity to deliver. Water delivered under the Emergency Storage Program can be used only for Emergency Storage Program purposes. On-going operating losses such as evaporation cannot be replaced through the Emergency Storage Program. Water delivered through the Emergency Storage Program is subject to interruption by Metropolitan due to supply, water quality, or operational conditions. Water delivered pursuant to the Emergency Program may be withdrawn from emergency storage only to the extent that:

(1) The local agency's governing body declares an emergency requiring public notice and extraordinary conservation measures.

(2) The emergency requires use of stored water for a period greater than seven days; and

(3) Operational storage has been completely used.

(b) Applicable rate – Water delivered through the Emergency Storage Program will be billed at the then applicable Tier 1 cost including System Access Rate, System Power Rate, Water Stewardship Rate and Tier 1 Supply Rate. The Treatment Surcharge will apply to treated water deliveries. Water delivered through the Emergency Storage Program is not to be included in the calculation of a member agency's Readiness-to-Serve Charge or Capacity Charge.

(c) Certification

(1) Certification process is subject to the rules specified in Section 4507.

(2) On a monthly basis, a participating member public agency will certify the volume of water delivered for Emergency Storage Program purposes for billing purposes via the District's electronic certification and billing system.

(3) A member public agency that has received water under the Emergency Storage Program shall certify to Metropolitan whether water delivered through the Emergency Storage Program is maintained as emergency storage and/or indicate the emergency for which the storage water was withdrawn. In the event of an emergency where the water is unavailable due to its prior use to meet non-emergency demands, the water will be re-billed to the member agency at the then current Tier 2 cost.

M.I. 45941 – October 12, 2004; paragraph (2) amended by M.I. 47998 - August 18, 2009.

[Chapter 6 - repealed by M.I. 41468 - June 13, 1995]

Chapter 7

SERVICE CONNECTIONS

Sec.
4700. General Authorization
4701. Authority for Execution of Service Connection Agreements
4702. Special Service Connection Terms and Conditions
4703. Appeal of Decisions Regarding Service Connections
4704. Compliance with Environmental Obligations for Service Connections
4705. Fair Value of Outlet
4706. Effect of Hydroelectric Facilities on Service Connections
4707. Temporary Service Connections
4708. General Manager's Report on Service Connections

§ 4700. General Authorization.

The General Manager is authorized to construct, or have constructed, any service connection requested by a member public agency, which, in the opinion of the General Manager, should be authorized and which is not specifically precluded by resolution of the Board; subject to such terms and conditions as shall be deemed by him to be reasonable and proper, and which shall, however, include the following:

(a) The District shall cause a service connection to be constructed pursuant to a written request by a member public agency in accordance with plans and specifications approved by the General Manager and by an authorized representative of member public agency. All equipment and materials required for constructing the service connection shall be acquired by the District in its customary manner, or the District may utilize therefor suitable equipment and materials on hand.

(b) The service connection shall include the facilities for diversion of water from the District's system and for delivery of such water into the pipeline distribution system of member public agency or of member public agency's affected distributor. The service connection up to and including the fitting connecting with the pipeline through which member public agency will receive water delivered through the service connection, which shall include metering instruments and a cabinet therefor, shall be the property of the District and shall be operated, maintained and controlled by the District.

(c) The costs of constructing the service connection shall be estimated by the General Manager, who shall inform the member public agency representative regarding the amount of such estimate. The total amount of such estimate shall be deposited by member public agency in advance of any action toward construction of the service connection, including all items peculiar only to a given service connection, or it may be deposited in stages, as follows:

(1) Estimated cost of final design, prior to commencement of final design.

(2) Cost of items of equipment and material requiring long term delivery, six weeks prior to the delivery date for such items, as estimated by General Manager.

(3) All remaining costs, six weeks prior to commencement of field construction; provided, however, that if the field construction period is estimated by the General Manager to exceed 90 calendar days, then payment of the remaining costs may be staged over the construction period, if the member public agency should so choose, by a series of advance deposits in amounts estimated by the General Manager to be sufficient to cover the construction in progress, but the first such advance deposit shall be made six weeks prior to commencement of field construction.

(4) Such deposits shall be held and used to defray the costs of constructing the service connection, and until such deposits have been received, except as provided in Section 4700(c)(3) the District shall not be required to undertake the construction of the service connection.

(d) Upon completion of construction of the service connection, the District shall render to member public agency a statement of all costs, audited and certified in accordance with the customary practice of the District, incurred by the District in constructing the service connection; if such costs shall exceed the sum of money theretofore deposited by member public agency with the District as provided hereinbefore in Section 4700(c) member public agency promptly shall pay to the District the amount by which such costs shall exceed such deposit; and if such costs be less than the said sum of money so deposited, any unexpended balance of such deposit shall be returned by the District to member public agency. Said costs incurred by the District shall include the costs of general administrative service and overhead expense, determined in accordance with the methods of cost accounting customarily employed by the District.

(e) Member public agency shall cause to be granted to the District or the District shall acquire at member public agency's expense, directly from the fee owner of the affected land, such easement as may be necessary in the opinion of the General Manager for the construction, operation, maintenance and repair of the service connection. Said easement and the grant thereof shall be approved by the District's General Counsel; provided, however, that fee title to the property required for such service connection may be acquired in the same manner as an easement and in lieu of an easement if the General Manager and member public agency agree that it would be advantageous to do so. Member public agency shall provide, or the District may obtain, at member public agency's sole cost and expense, a policy of title insurance insuring that clear title to the easement, or fee, is vested in "The Metropolitan Water District of Southern California, a public corporation of the State of California," subject to any encumbrances that have been approved in writing by the General Manger. The amount of title insurance shall be determined by the acquisition cost, unless the acquisition is made without cost or for less than the amount of the coverage which will be provided for the price paid for the title report, in which case the title policy shall be in the amount of such coverage.

(f) Upon completion of the service connection, the District shall be responsible for any subsequent maintenance, alteration, reconstruction or relocation of such service connection except changes which are requested by a member public agency, which changes shall be handled as a new service connection. However, prior to the release of water by the District into the pipeline distribution system of member public agency or of member public agency's affected distributor, each agency shall install its own flow control device or devices as a means of maintaining uniform flow. Should the service connection be of the type that delivers water into an open channel or basin for groundwater replenishment use, then member public agency shall have the following options for the design, construction, ownership and maintenance of the required flow control device or devices.

(1) The District at the request of member public agency will design, construct, own, operate and maintain such flow control device or devices deemed necessary for the regulation of water deliveries, in which case the District's responsibility shall not extend beyond the ownership of the flow control facility, and any and all liabilities arising from release of water in the quantities agreed upon by member public agency and the District shall be the full responsibility of member public agency. Construction of the aforementioned facility shall be included as an additional feature of the service connection and the related cost shall be included as a part of the total cost of the service connection.

(2) Member public agency may design, construct, own, and maintain the aforementioned flow control facility, in which case the District's responsibility shall not extend beyond ownership of its meter facility, and any and all liabilities arising from release of water in the quantities agreed upon by member public agency and the District shall be the full responsibility of member public agency. However, the quantity of water delivered to member public agency through the flow control facility at any time shall be only as requested by member public agency, subject to the ability of the District to operationally meet such requests.

Section 321.1 based on Res. 7489 - April 10, 1973 amending Res. 7038 - November 14, 1967; paragraph (f) [formerly Section 321.1.6 amended by M.I. 32690 - April 10, 1979 and M.I. 33642 - March 10, 1981. Section 321.1 repealed and Section 4700 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4701. Authority for Execution of Service Connection Agreements.

The General Manager is authorized to execute on behalf of the District any agreement or agreements necessary or proper to be entered into between the District and a member public agency in order to provide for the construction of a service connection in the manner and subject at least in part to the terms and conditions set forth in this Chapter. Each such agreement shall be in form approved by the General Counsel of the District.

Section 321.2 based on Res. 7489 - April 10, 1973 amending Res. 7038 - November 14, 1967; amended by M.I. 32690 - April 10, 1979; amended by M.I. 35992 - March 11, 1986. Section 312.2 repealed and Section 4701 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4702. Special Service Connection Terms and Conditions.

If a service connection is requested by a member public agency to which the terms and conditions, or any portion thereof, whether as required by the General Manager or as required by this Chapter 6, are inappropriate in either the opinion of the General Manager or the member public agency, such request may be presented to the Board for its determination of appropriate terms and conditions, together with the reasons why the required terms and conditions are claimed to be inappropriate.

Section 321.3 based on Res. 7489 - April 10, 1973 amending Res. 7038 - November 14, 1967; amended by M.I. 32690 - April 10, 1979. Section 312.2 repealed and Section 4702 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4703. Appeal of Decisions Regarding Service Connections.

Any affected member public agency may appeal to the Board from any decision or action of the General Manager hereby authorized. The decision of the Board of Directors shall be final. Subject to Sections 4702 and 4703, the General Manager shall make all determinations of fact.

Section 321.4 based on Res. 7489 - April 10, 1973 amending Res. 7038 - November 14, 1967. Section 321.4 repealed and Section 4703 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4704. Compliance with Environmental Obligations for Service Connections.

Member public agencies are responsible for ensuring that the obligations of lead agencies as described in the California Environmental Quality Act and its implementing guidelines are fulfilled. The District shall fulfill all other obligations that may arise from its involvement in construction of the service connections and shall provide such information as it has available which is necessary to insure compliance with the Act and its implementing guidelines.

Section 321.5 based on Res. 7489 - April 10, 1973 amending Res. 7038 - November 14, 1967. Section 321.5 repealed and Section 4704 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4705. Fair Value of Outlet.

The fair value of an outlet installed during pipeline construction will be established by the General Manager at the time a service connection is constructed at the outlet, and the charge to a member public agency for such an outlet will be based on this fair value; provided that any outlet larger than 24 inches or any outlet installed after a pipeline is placed in operation shall be charged for its actual cost.

Section 321.7 - M.I. 27804 - October 14, 1969; amended by M.I. 32690 - April 10, 1979; renumbered 321.6 by M.I. 33596 - February 10, 1981. Section 321.6 repealed and Section 4705 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4706. Effect of Hydroelectric Facilities on Service Connections.

(a) The operation of a hydroelectric generating facility on the District's water distribution system may result in a reduction in the District's minimum design pressure at the downstream service connection through which a member public agency has been receiving water pursuant to Section 4700(f). In that event, the District may, at its own expense, in order to facilitate its water distribution or maintain maximum generation of the hydroelectric power, take reasonable and appropriate measures, either to adjust its own system to continue to supply water to the affected member public agency at such minimum design pressure, or to enable the agency to pump the water on its system to a pressure equal to such minimum design pressure.

(b) For purposes of this section, the minimum design pressure is defined as the lessor of:

(1) The pressure resulting from the design flow hydraulic gradient, as shown on the District's hydraulic profiles or,

(2) The pressure resulting from a low-flow hydraulic gradient in a reach of pipeline which was designed for "falling head."

Section 321.8 - M.I. 33443 - October 14, 1980; renumbered 321.7 by M.I. 33596 - February 10, 1981. Section 321.7 repealed and Section 4706 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4707. Temporary Service Connections.

The General Manager is authorized to enter into and to perform any agreement for the construction and removal of a temporary service connection requested by a member public agency or other governmental agency to serve its needs for a limited time. Notwithstanding the provisions of Section 4700, such agreement may be upon such terms and conditions as the General Manager and the requesting entity may agree upon and may provide for payment of the cost of construction and removal of the temporary service connection based upon an estimate prepared by the General Manager.

Section 321.8 - M.I. 33596 - February 10, 1981. Section 321.8 repealed and Section 4707 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4708. General Manager's Report on Service Connections.

The General Manager shall report quarterly to the Engineering and Operations Committee of the Board new service connections approved by him pursuant to this Chapter with the estimated cost and approximate location of each.

Section 321.6 based on Res. 7489 April 10, 1973 amending Res. 7038 November 14, 1967; amended by M.I. 32690 - April 10, 1979; renumbered 321.9 by M.I. 33596 - February 10, 1981; amended by M.I. 36065 - May 13, 1986. Section 321.9 repealed and Section 4708 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987; title and Section amended by M. I. 44582 – August 20, 2001; amended by M. I. 46983 - February 13, 2007; section amended by M.I. 48081 – November 10, 2009.

Chapter 8

SYSTEM INTERCONNECTIONS - HYDRAULIC TRANSIENTS

Sec.
4800. Definitions
4801. General
4802. Notice of New Construction or Alterations
4803. Reduction or Suspension of Deliveries

§ 4800. Definitions.

(a) As used in this Chapter 8, "hydraulic transient" means a change in pressure or flow-rate resulting from the sudden stoppage or increase of flow of water in a pipeline.

(b) As used in this Chapter 8, "new construction or modification" means new construction or modification on or affecting any part of a member public agency's or subagency's distribution system which is directly connected to the District's distribution system and which could cause a hydraulic transient affecting or potentially affecting the District's system.

Section 322.5.4.1 - M.I. 34826 - August 17, 1983. Section 322.5.4.1 repealed and Section 4800 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4801. General.

Member public agencies shall avoid, and shall cause their subagencies to avoid, the creation of conditions that could cause hydraulic transients to damage the District's facilities. Where a member public agency or a subagency installs hydroelectric or pumping facilities on a pipeline that is directly connected to the District's system such condition may be avoided by the installation of reliable protective devices including, but not limited to, surge tanks, bypass or feeder tanks, and pressure relief valves.

Section 322.5.4.2 - M.I. 34826 - August 17, 1983. Section 322.5.4.2 repealed and Section 4801 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4802. Notice of New Construction or Alterations.

Each member public agency shall notify the District of any proposed new construction or modification and shall require each subagency to provide such notice to the District with regard to any proposed new construction or modification. Such notice shall be accompanied by project plans and specifications. Within 30 days after receipt of the notice, the District shall notify the member public agency or subagency of its comments on such plans and specifications for the purpose of minimizing the possibility of hydraulic transients that could damage the District's facilities.

Section 322.5.4.3 - M.I. 34826 - August 17, 1983; amended by M.I. 35992 - March 11, 1986. Section 322.5.4.3 repealed and Section 4802 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

§ 4803. Reduction or Suspension of Deliveries.

The General Manager is authorized to reduce or suspend deliveries to any member public agency if he determines that a member public agency or subagency has failed to install reliable protective devices to protect the District's facilities from damage from hydraulic transients and that a substantial risk of such damage exists.

Section 322.5.4.4 - M.I. 34826 - August 17, 1983. Section 322.5.4.4 repealed and Section 4803 adopted by M.I. 36464 - January 13, 1987, effective April 1, 1987.

[Chapter 9 – repealed by M.I. 50323 - December 8, 2015]

EXECUTION VERSION

ESAA CAPACITY AGREEMENT

THIS ESAA CAPACITY AGREEMENT (this "***Agreement***") is made and entered into as of November 29, 2017 ("Effective Date"), by and among the **PECHANGA BAND OF LUISEÑO MISSION INDIANS** (***"Pechanga"***), a federally recognized Indian Tribe, **RANCHO CALIFORNIA WATER DISTRICT** ("***RCWD***"), a California water district organized pursuant to California Water Code section 34000 *et seq.*, and the **UNITED STATES OF AMERICA**, acting through the Secretary of the Department of the Interior.

RECITALS

A. Pechanga, RCWD, and the United States of America, among others, have agreed to a comprehensive settlement of all of Pechanga's claims for water rights in the Santa Margarita River Watershed. The Pechanga Band of Luiseño Mission Indians Water Rights Settlement Agreement ("***Settlement Agreement***") memorializes the settlement.

B. As part of the Settlement Agreement, Pechanga, MWD (as hereinafter defined) and EMWD (as hereinafter defined) agreed to an Extension of Service Area Agreement ("***ESAA***"), which is attached to the Settlement Agreement as Exhibit F. The ESAA provides for MWD and EMWD to provide treated water to Pechanga ("***Imported Water***").

C. In furtherance of the Settlement Agreement and the ESAA, Pechanga, the United States of America, and RCWD seek to provide capacity within RCWD's distribution system to enable RCWD to deliver Imported Water to Pechanga on an interim and permanent basis.

D. The United States Congress has authorized, ratified, and confirmed the Settlement Agreement by act of Congress. *See* Pechanga Band of Luiseño Mission Indians Water Rights Settlement Act, Subtitle D of Title III of Pub. L. No. 114-322 (2016) (the "**Act**"). In the Act, Congress authorized, as a portion of the settlement to which Pechanga is entitled, funds to pay for water delivery capacity to provide for the delivery of Imported Water to Pechanga.

E. The Parties seek to establish the terms and conditions, pursuant to which RCWD shall provide such water delivery capacity to Pechanga.

AGREEMENT

IT IS AGREED AS FOLLOWS:

1. Definitions. Capitalized terms used in this Agreement shall have the meanings set forth below.

"***Act***" means the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Act, Subtitle D of Title III of Pub. L. No. 114-322 (2016).

"***AFY***" means acre-feet per Year.

"***Agreement***" means this ESAA Capacity Agreement, by and among Pechanga, RCWD, and the United States of America, dated as of the date first written above.

"***EMWD***" means Eastern Municipal Water District, a municipal water district organized and existing in accordance with Division 20 of the California Water Code.

"***Enforceability Date***" means the date on which the Secretary publishes in the Federal Register the statement of findings described in section 3407(e) of the Act.

"***ESAA Capacity***" means capacity within RCWD's distribution system necessary to provide Imported Water to Pechanga on an interim and long term basis.

"***ESAA Water Delivery Agreement***" means the agreement attached to the Settlement Agreement (as hereinafter defined) as Exhibit H.

"***Imported Water***" means any water delivered to Pechanga pursuant to the ESAA and the ESAA Water Delivery Agreement.

"***Interim Capacity***" has the meaning set forth in Exhibit G-1. "Interim Capacity Notice" has the meaning set forth in Section 4(b)(i) of this Agreement.

"***MWD***" means The Metropolitan Water District of Southern California, a metropolitan water district organized and incorporated under the Metropolitan Water District Act of the State of California (Stats. 1969, Chapter 209, as amended).

"***Party***" means any entity represented by a signatory to this Agreement and "***Parties***" means more than one of such entities

"***Pechanga***" means the Pechanga Band of Luiseño Mission Indians, a federally recognized sovereign Indian tribe that functions as a custom and tradition Indian tribe, acting on behalf of itself and its members (but not members in their capacities as Allottees).

"***Pechanga Settlement Fund***" means the fund established by section 3409 of the Act. "Pechanga ESAA Delivery Capacity Account" means the account established by section 3409(c)(2) of the Act.

"***Permanent Capacity***" has the meaning set forth in Exhibit G-2.

"***RCWD***" means the Rancho California Water District, a California water district organized pursuant to California Water Code section 34000 *et seq.*

"***Section***" means a section or subsection of this Agreement.

"***Settlement Agreement***" has the meaning set forth in Recital A.

"***United States***" means the United States or the United States of America acting in its capacity as trustee for Pechanga, its Members and Allottees.

"***Year***" means a calendar year of January 1 through December.

2. List of Exhibits.

Exhibit No.	Exhibit Name
G-1	Description of Interim Capacity
G-2	Description of Permanent Capacity

3. Pechanga ESAA Delivery Capacity Account.

(a) Section 3409(c)(2) of the Act directed the Secretary of the Department of the Interior to establish the Pechanga ESAA Delivery Capacity Account as an account held in trust by the United States within the Pechanga Settlement Fund.

(b) Section 3411(a)(2) of the Act authorized $17,900,000 to be appropriated into the Pechanga ESAA Delivery Capacity Account, such amount to be adjusted to account for changes in construction costs since June 30, 2009, as is indicated by ENR Construction Cost Index, 20-City Average, as applicable to the types of construction required for the Band to provide the infrastructure necessary for the Band to provide the Interim Capacity and Permanent Capacity in the event that RCWD elects not to provide the Interim Capacity or Permanent Capacity as set forth in the ESAA Capacity Agreement and contemplated in sections 3408(d)(2)(D) and 3408(d)(3)(D) of the Act, with such adjustment ending on the date on which funds authorized to be appropriated under this section have been deposited in the Fund.

(c) Section 3408(d) of the Act directed the Secretary to use funds from the ESAA Delivery Capacity Account to allow for:

(i) Pechanga's payment to RCWD for Interim Capacity and Permanent Capacity in accordance with this Agreement; or

(ii) Pechanga's share of the costs associated with the design and construction of the ESAA Capacity in accordance with this Agreement.

(d) Section 3409(a) of the Act provides that funds deposited into the Pechanga ESAA Delivery Capacity Account shall have interest accrue thereon for disbursement in accordance with the provisions of this Agreement.

4. RCWD Interim Capacity Commitment.

(a) RCWD shall provide Interim Capacity to Pechanga for the delivery of Imported Water to Pechanga beginning on the date that deliveries are to commence pursuant to this Agreement.

(b) In consideration of RCWD's commitment to provide Interim Capacity as set forth in Section 4(a) of this Agreement, Pechanga shall, subject to the availability of funds in the Pechanga ESAA Delivery Capacity Account, pay for such Interim Capacity, in accordance with the following procedure and schedule:

(i) Within thirty (30) days after the occurrence of the later of (a) the Enforceability Date or (b) the date that deliveries of Imported Water are scheduled to occur

in accordance with the terms and conditions of this Agreement, RCWD shall provide written notice to Pechanga that it shall be ready to commence deliveries of Imported Water in an amount up to the amounts possible under the Interim Capacity ("Interim Capacity Notice").

(ii) The Interim Capacity Notice shall include a request for payment in the amount of one million dollars ($1,000,000), as adjusted in accordance with Section 3411(a) of the Act, which shall constitute the full and complete consideration to be paid to RCWD by Pechanga for RCWD's provision of Interim Capacity until the later of the date on which (x) Permanent Capacity is made available to Pechanga pursuant to this Agreement, or (y) deliveries of Imported Water cease permanently, pursuant to and in accordance with the terms of the ESAA Water Delivery Agreement.

(iii) Pechanga shall not be responsible for any additional charges, fees, assessments or costs from RCWD in connection with RCWD's delivery of Imported Water to Pechanga using the Interim Capacity.

(iv) Subject to Section 4(b)(vi) of this Agreement, upon receipt of the Interim Capacity Notice, Pechanga shall promptly file a written request to the Secretary for disbursement of funds from the Pechanga ESAA Delivery Capacity Account in an amount equal to the amount set forth in the Interim Capacity Notice.

(v) Upon receipt of the written request from Pechanga in accordance with Section 4(b)(iv) of this Agreement and confirmation that such written request conforms to the requirements of this Agreement and the Act, subject to the availability of funds in the Pechanga ESAA Delivery Capacity Account, the Secretary shall make payment directly to RCWD in an amount equal to the amount set forth in Pechanga's written request.

(vi) If Pechanga withdraws the funds in the ESAA Delivery Capacity account pursuant to the Act, subject to the availability of funds in the Pechanga ESAA Delivery Capacity Account, Pechanga shall make payment directly to RCWD in an amount equal to the amount set forth in the Interim Capacity Notice.

(c) If RCWD does not provide the Interim Capacity Notice required pursuant to the ESAA Capacity Agreement by the date that is 60 days after the date required under the ESAA Capacity Agreement, the amounts in the Pechanga ESAA Delivery Capacity account for purposes of the provision of Interim Capacity and Permanent Capacity, including any interest that has accrued on those amounts, shall be available for use by Pechanga to provide alternative interim capacity in a manner that is similar to the Interim Capacity and Permanent Capacity that Pechanga would have received had RCWD provided such Interim Capacity and Permanent Capacity.

5. RCWD Permanent Capacity Commitment.

(a) RCWD shall provide Permanent Capacity to Pechanga for the delivery of Imported Water to Pechanga at such time as RCWD is physically capable of providing such capacity but in no event later than five (5) years after the Enforceability Date.

(b) In consideration of RCWD's commitment to provide Permanent Capacity as set forth in Section 5(a) of this Agreement, Pechanga shall, subject to the availability of funds in

and from the ESAA Delivery Capacity Account, make a payment for such Permanent Capacity, in accordance with the following procedure and schedule:

(i) At any time after the Enforceability Date has occurred, and at such time as RCWD is physically capable of making a permanent commitment of capacity equal to the Permanent Capacity, RWCD shall provide written notice of said event to Pechanga (the "Permanent Capacity Notice"). RCWD shall submit the Permanent Capacity Notice not later than five (5) years after the Enforceability Date. If RCWD does not submit the Permanent Capacity Notice to Pechanga by such date, then the funds set aside in the Pechanga ESAA Delivery Capacity Account to pay for Pechanga's contribution to the Permanent Capacity, including any interest that has accrued thereon, shall be available for use by Pechanga to design and construct alternative Imported Water delivery facilities in accordance with Section 6 of this Agreement.

(ii) The Permanent Capacity Notice shall include a request for payment in the amount of sixteen million nine hundred thousand dollars ($16,900,000), as adjusted in accordance with Section 3411(a) of the Act, plus any interest accrued on the funds set aside in the Pechanga ESAA Delivery Capacity Account prior to the date of the issuance of the Permanent Capacity Notice. The amount of interest accrued on such funds for purposes of the Permanent Capacity Notice shall be as set by the Secretary upon written request from RCWD for a statement of such amount of interest.

(iii) Subject to Section 5(b)(vii) of this Agreement, upon receipt of the Permanent Capacity Notice, Pechanga shall promptly file a written request to the Secretary that will allow for disbursement of funds from the Pechanga ESAA Delivery Capacity Account in an amount equal to the amount set forth in the Permanent Capacity Notice.

(iv) Upon receipt of the written request from Pechanga in accordance with Section 5(b)(iii) above and confirmation that such written request conforms to the requirements of this Agreement and the Act, subject to the availability of funds in the Pechanga ESAA Water Delivery Capacity Account, the Secretary shall make payment directly to RCWD in an amount equal to the amount set forth in Pechanga's written request.

(v) The amount paid pursuant to Section 5(b)(iv) of this Agreement, combined with the payment made pursuant to Section 4 of this Agreement, shall constitute the full and complete consideration to be paid to RCWD by Pechanga for RCWD's provision of Permanent Capacity.

(vi) Pechanga shall not be responsible for any additional charges, fees, assessments, or costs from RCWD in connection with RCWD's provision of Permanent Capacity to Pechanga, except as provided in the ESAA Water Delivery Agreement, attached as Exhibit H to the Settlement Agreement.

(vii) If Pechanga withdraws the funds in the ESAA Delivery Capacity Account pursuant to the Act, subject to the availability of funds in the Pechanga ESAA Delivery Capacity Account, Pechanga shall make payment directly to RCWD in an amount equal to the amount set forth in the Permanent Capacity Notice.

6. Alternative ESAA Water Delivery Facilities.

If RCWD does not submit the Permanent Capacity Notice to Pechanga within five (5) years of the Enforceability Date, then the funds set aside in the Pechanga ESAA Delivery Capacity Account to pay for such Permanent Capacity, including any interest that has accrued thereon, shall be available for use by Pechanga to design and construct alternative Imported Water delivery facilities in accordance with this Section 6. In such event, promptly after the date five (5) years after the date on which the Act is enacted into law, Pechanga and the Secretary will meet and confer to develop plans for the design and construction of alternative Imported Water delivery facilities that will, with the funds available in the Pechanga Imported Water Delivery Facilities Account, provide delivery capacity for Pechanga to receive the same amount of Imported Water as it would have received from RCWD had it provided the Permanent Capacity. The fact that RCWD does not submit the Permanent Capacity Notice to Pechanga within five (5) years of the date on which the Act is enacted into law does not absolve RCWD of its obligation to provide Interim Capacity to Pechanga, which obligation shall continue for so long as Pechanga requires.

7. Notices.

All notices required to be given hereunder shall be in writing and may be given in person, by facsimile transmission, or by United States mail postage prepaid, and shall become effective at the earliest of actual receipt by the Party to whom notice is given, when delivered to the designated address of the Party, or if mailed, forty-eight (48) hours after deposit in the United States mail addressed as shown below or to such other address or addressee as such Party may from time to time designate in writing.

If to Pechanga:
Mark Macarro
Chairman
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

With a copy to:
General Counsel
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593

and to:

Donald R. Pongrace
Akin Gump Strauss Hauer & Feld LLP
1333 New Hampshire Avenue, NW Suite 400
Washington, DC 20036

If to the United States:
Assistant Secretary for Indian Affairs
U.S. Department of the Interior
1849 C St. NW, 4660 MIB

Washington, DC 20240-0001

And to:

Regional Director
Pacific Regional Office
Bureau of Indian Affairs
2800 Cottage Way
Sacramento, CA 95825

And to:

Chief, Indian Resources Section
Environment and Natural Resources Division
U.S. Department of Justice
601 D Street, NW
Washington, DC 20004

And to:

Associate Solicitor
Division of Water Resources
1849 C Street, NW MS 6413
Washington, DC 20240
If to RCWD:
General Manager
Rancho California Water District
42135 Winchester Road
Temecula, CA 92590

With a copy to:

James Gilpin
Best Best & Krieger LLP
655 West Broadway, 15th Floor
San Diego, CA 92101

8. Termination.

In the event the Recycled Water Transfer Agreement is terminated for any reason, either in accordance with its terms or pursuant to court order, this Agreement shall automatically terminate fourteen (14) day after such termination of the Recycled Water Transfer Agreement without further action by any Party unless the Parties otherwise agree.

9. Representations and Warranties.

(a) **Representations and Warranties of Pechanga.** Pechanga represents and warrants to RCWD as follows:

(i) Pechanga's execution, delivery, and performance of this Agreement

have been duly authorized by all necessary action of Pechanga.

(ii) Pechanga is neither a party to any agreement, covenant, or other agreement or instrument nor subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

(iii) This Agreement is a legal, valid, and binding obligation of Pechanga enforceable against Pechanga in accordance with this Agreement's terms.

(iv) There is no pending or threatened action or proceeding against or affecting Pechanga before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of Pechanga or the ability of Pechanga to perform its obligation under this Agreement.

(v) To the best of Pechanga's knowledge, the validity of this Agreement; the execution and delivery by Pechanga of this Agreement; and Pechanga's performance of its obligations hereunder will not require any permit, license, certificate, waiver, notice, approval, consent or similar authorization from any federal, state, or local judicial, regulatory, or administrative body.

(b) **Representations and Warranties of RCWD.** RCWD represents and warrants to Pechanga as follows:

(i) RCWD's execution, delivery and performance of this Agreement have been duly authorized by all necessary action of RCWD.

(ii) RCWD is not a party to any agreement, covenant or other agreement or instrument, or subject to any charter or corporate restriction which could have a material adverse effect on its ability to fulfill any of its responsibilities under this Agreement.

(iii) This Agreement constitutes a legal, valid, and binding obligation of RCWD enforceable against it in accordance with its terms.

(iv) There is no pending or threatened action or proceeding against or affecting RCWD before any tribunal or governmental authority which may, in any one case or in the aggregate, materially adversely affect the operations, properties, or business of RCWD or the ability of RCWD to perform its obligation under this Agreement.

(v) To the best of RCWD's knowledge, the validity of this Agreement; the execution and delivery by RCWD of this Agreement; and the performance by RCWD of its obligations hereunder will not require any permit, license, certificate, waiver, notice, approval, consent, or similar authorization from any federal, state or local judicial, regulatory, or administrative body.

10. Breach of Representation or Warranty. Any representation or warranty made by a Party in Section 9 that shall prove to have been incorrect in any material respect as of the effective date of this Agreement shall be deemed to constitute a material breach of this Agreement by the Party giving such representation or warranty.

11. Amendments; Waivers. No amendment, modification, waiver, replacement, termination, or cancellation of any provision of this Agreement will be valid, unless the same is in writing and signed by the Parties. No waiver by a Party of any breach by the other Party of any of the terms or conditions of this Agreement, or of any right of such Party hereunder, shall be construed as a waiver of any subsequent breach by the other Party of the same or other terms or conditions, or of the future exercise by such Party of the same or any other right hereunder. Neither the failure nor any delay on the part of a Party to exercise any right or remedy under this Agreement will operate as a waiver thereof, nor does any single or partial exercise of any right or remedy preclude any other or subsequent exercise of the same or of any other right or remedy.

12. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of California and the United States, as applicable, without regard to any choice of laws or conflicts of laws provisions which would direct the application of the laws of any other jurisdiction. The venue for arbitration proceedings shall be Riverside County, California.

13. Dispute Resolution.

(a) Pechanga is a sovereign Indian Nation, and as such it possesses sovereign immunity from suit. Nothing in this Agreement is or shall be deemed to be a waiver of Pechanga's sovereign immunity from suit, which immunity is expressly asserted, except that Pechanga agrees to waive its immunity for the limited and sole purposes of compelling arbitration by RCWD and of enforcing arbitration of any decision rendered pursuant to the terms and conditions of this Agreement.

(b) With respect to any dispute arising under this Agreement, prior to pursuing dispute resolution pursuant to either Section 11(c) or 11(f), each Party shall, whenever possible, attempt to resolve any grievances, complaints or disputes that are brought to its attention by another Party. Any Party with a grievance or complaint arising under this Agreement shall notify the other Parties in writing of its grievance or complaint at the other Parties' respective address of record. Within ten (10) days of receipt of such notice, unless the problem has been resolved, the Parties shall meet and confer in good faith to determine what remedial action, if any, is necessary.

(c) In the event of any dispute between RCWD and Pechanga arising under this Agreement, such dispute shall be submitted to mandatory binding arbitration, to be conducted in Riverside County, CA, pursuant to the Commercial Rules of the American Arbitration Association. RCWD and Pechanga shall each initially pay its own arbitration costs and expenses, but the arbitrator may, in its discretion, include such costs and expenses, together with reasonable attorneys' fees, as part of the award to the prevailing party. Any award of the arbitrators may be submitted for enforcement to a court of competent jurisdiction located in Riverside County, CA.

(d) Judicial remedies are specifically limited to the enforcement of an award of money damages by arbitration pursuant to this Agreement; provided that the arbitrator(s) and/or court shall have no authority or jurisdiction to execute against any assets of Pechanga except to award the prevailing party the amounts paid or payable under this Agreement, costs of arbitration, court costs to enforce the arbitration decision and legal fees incurred during arbitration and any subsequent court proceedings to enforce the arbitration decision.

(e) Pechanga's limited waiver of its sovereign immunity as provided herein extends only to an arbitration, action to compel arbitration and action to confirm or enforce arbitration awards by RCWD and no other person or entity, for money damages in an amount not to exceed the amounts paid or payable under this Agreement, for Pechanga's breach of this Agreement.

(f) In the event of any dispute between the United States and RCWD or Pechanga arising under this Agreement, a Party shall have the right to petition the Adjudication Court for such relief as may be appropriate to enforce the terms, conditions, and limitations as provided in this Agreement. The United States acknowledges and agrees that the Adjudication Court has jurisdiction to hear such disputes between the Parties arising under this Agreement.

14. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be considered an original but all of which, taken together, shall constitute one and the same instrument.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and dated as of the date first above written.

PECHANGA BAND OF LUISEÑO MISSION INDIANS

By:_____
Tribal Chairman

Date: 11/29/17

Approved as to form:

By:_____

RANCHO CALIFORNIA WATER DISTRICT

By:_____
General Manager

Date: 11/29/17

Approved as to form:

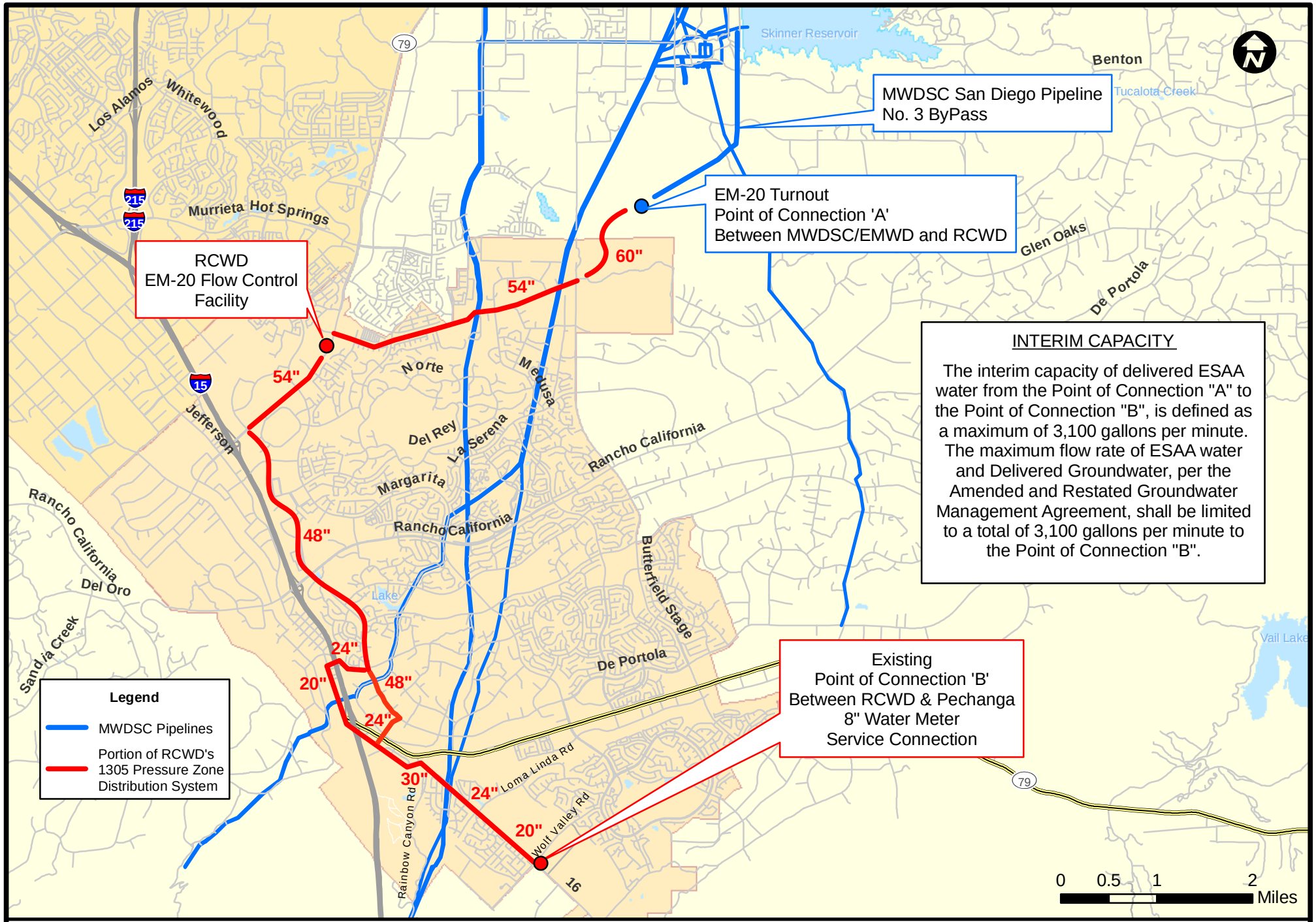
By:_____

THE UNITED STATES OF AMERICA

By:_____
Secretary of the Interior

Dated: 29 NOV 17

Exhibit G-1



RANCHO CALIFORNIA WATER DISTRICT

42135 Winchester Road - Temecula - CA - 92590 - (951) 296-6900

EXHIBIT G-1

Geographic Information Services

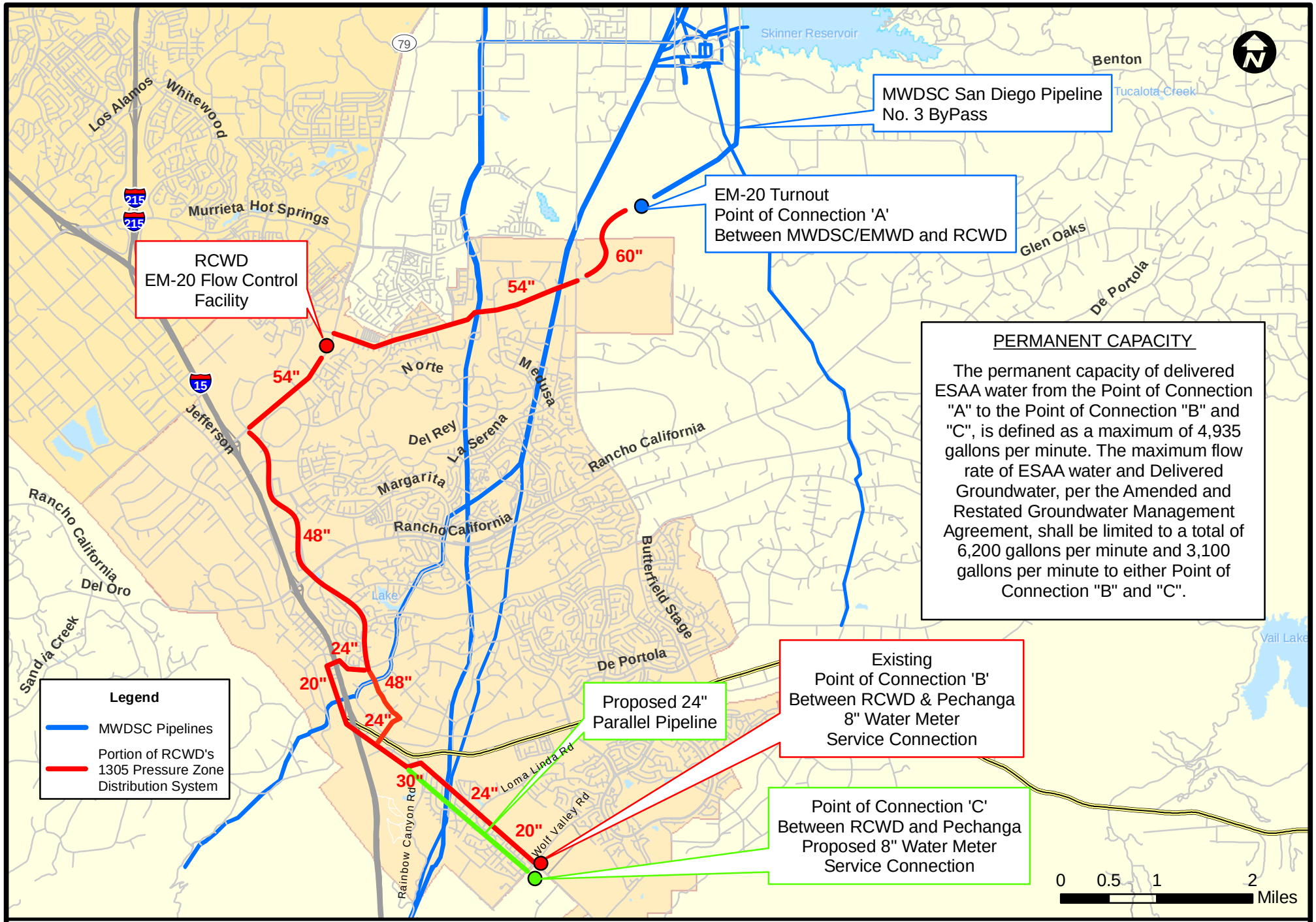
SCALE: *As Shown*

SUBJECT: ***ESAA Capacity Agreement***
Description of Interim Capacity

SHEET **1** OF 1 SHEETS

PREPARED BY: *J. Gonzalez*

Exhibit G-2



RANCHO CALIFORNIA WATER DISTRICT

42135 Winchester Road - Temecula - CA - 92590 - (951) 296-6900

EXHIBIT G-2

Geographic Information Services

SCALE: *As Shown*

SUBJECT: ***ESAA Capacity Agreement***
Description of Permanent Capacity

SHEET 1 OF 1 SHEETS

PREPARED BY: *J. Gonzalez*

EXECUTION VERSION

ESAA WATER DELIVERY AGREEMENT

THIS **ESAA WATER DELIVERY AGREEMENT** (this "*Agreement*") is made and entered into as of November 29, 2017 ("*Effective Date*"), by and among the **PECHANGA BAND OF LUISEÑO MISSION INDIANS** ("*Pechanga*"), a federally recognized Indian Tribe, **RANCHO CALIFORNIA WATER DISTRICT** ("*RCWD*"), a California water district organized pursuant to California Water Code section 34000 *et seq.*, and **EASTERN MUNICIPAL WATER DISTRICT** ("*EMWD*"), a municipal water district organized and existing in accordance with the Municipal Water District Act of 1911, Division 20 of the Water Code of the State of California, as amended. Pechanga, RCWD, and EMWD are each individually sometimes called "*Party*" and sometimes collectively called "*Parties.*"

RECITALS

A. RCWD and Pechanga have agreed to a comprehensive settlement of Pechanga's claims to water rights and certain claims for injuries to water rights in the Santa Margarita River Watershed, which is memorialized in the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Agreement ("*Settlement Agreement*").

B. The Settlement Agreement recognizes that Pechanga, the Metropolitan Water District of Southern California ("*Metropolitan*"), and EMWD agreed to an Extension of Service Area Agreement ("*ESAA*"), attached to the Settlement Agreement as Exhibit F. The ESAA provides for Metropolitan and EMWD to provide treated water service to Pechanga ("*Imported Water*") for use in the Consolidated Area as defined in Preambles F and J of the ESAA.

C. The Settlement Agreement also recognizes that Pechanga and RCWD entered into an Amended and Restated Groundwater Management Agreement, attached to the Settlement Agreement as Exhibit A. This Agreement provides for RCWD to pump and deliver groundwater from the Wolf Valley Groundwater Basin to Pechanga upon request in exchange for a groundwater delivery charge, among other matters.

D. In furtherance of the Settlement Agreement and the ESAA, Pechanga and RCWD have agreed that Pechanga will purchase capacity to enable RCWD to deliver Imported Water

from Metropolitan and EMWD to Pechanga on an interim and long term basis ("*ESAA Capacity*") pursuant to the ESAA Capacity Agreement attached as Exhibit G to the Settlement Agreement.

E. The Parties seek to establish delivery, billing and other operational protocols necessary to enable RCWD to deliver Imported Water to Pechanga.

F. The Parties acknowledge the comprehensive settlement of Pechanga's claims for water rights in the Santa Margarita River Watershed will be effected through federal legislation known as the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Act, Subtitle D of Title III of Pub. L. No. 114-322 (2016), and further acknowledge such legislation limits use of the Tribal Water Right, as defined in the Act and herein, to use on the Reservation.

AGREEMENT

IT IS AGREED AS FOLLOWS:

1. Construction.

1.1 Definitions. Capitalized terms used in this Agreement shall have the meanings respectively ascribed thereto below or as set forth elsewhere in this Agreement.

"***Act***" means the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Act, Subtitle D of Title III of Pub. L. No. 114-322 (2016).

"***AFY***" means acre-feet per Year.

"***Agreement***" means this ESAA Water Delivery Agreement by and among Pechanga, RCWD, and EMWD dated as of the date first written above.

"***Consolidated Area***" means the area of land on the Reservation, as that term is defined in Section 3(33) of the Act, that includes both the Existing Area and the Extended Area, as those two terms are defined in Exhibit F to the Settlement Agreement, and is identified as the Consolidated Area and depicted in the map attached hereto as Exhibit F-3.

"***Effective Date***" is defined in the first paragraph of this Agreement.

"***EMWD***" means Eastern Municipal Water District, a municipal water district organized and existing in accordance with the Municipal Water District Act of 1911, Division 20 of the Water Code of the State of California, as amended.

"***Imported Water***" means any water delivered to Pechanga pursuant to the ESAA and this Agreement.

"***Party***" means any entity represented by a signatory to this Agreement and "***Parties***" means more than one of such entities.

"***Pechanga***" means the Pechanga Band of Luiseño Mission Indians, a federally recognized sovereign Indian tribe that functions as a custom and tradition Indian tribe, acting on behalf of itself and its members (but not members in their capacities as Allottees).

"***RCWD***" means the Rancho California Water District, a California water district organized pursuant to California Water Code section 34000 *et seq.*

"***Section***" means a section or subsection of this Agreement.

"***Settlement Agreement***" has the meaning set forth in Recital A of this Agreement.

"Tribal Water Right" means the water established and confirmed by Section 5 of the Act.

"***Year***" means a calendar year of January 1 through December 31.

2. **Deliveries.** RCWD agrees to facilitate the delivery of Imported Water, which Pechanga is entitled to purchase from EMWD pursuant to the ESAA, on a continual basis at the capacity established in the ESAA Capacity Agreement.

3. **Points of Connection.** RCWD will deliver Imported Water to Pechanga from the ESAA Delivery Point, depicted as Point of Connection "A" on the map attached as Exhibit H-1 to this Agreement, to the Pechanga Delivery Point, depicted as Point of Connections "B" and "C" on the map attached as Exhibit H-2 to this Agreement.

4. **Environmental Compliance Costs.** EMWD will serve as Lead Agency for any California Environmental Quality Act (CEQA) documents and analysis. Pechanga will reimburse to EMWD any costs incurred by EMWD in connection with completion of environmental documentation required by the CEQA and/or the National Environmental Policy Act and/or for purposes of approval of this Agreement, to the extent such costs would be recoverable by EMWD in connection with an annexation of land into the EMWD service area by any other customer. EMWD will provide a separate invoice to Pechanga for such reimbursable costs.

Pechanga shall be responsible for the cost of the preparation of any defense of any legal challenge related to Metropolitan's, EMWD's, or RCWD's compliance with the National Environmental Policy Act ("NEPA") and/or the California Environmental Quality Act

("CEQA") and other applicable state laws or any other challenge to the transaction contemplated by this Agreement.

5. Rates for Delivered Imported Water. EMWD will continue to be billed by Metropolitan for water delivered through service connection EM-20 (identified in Exhibit H-1) to RCWD. The cost of RCWD's delivery of Imported Water to Pechanga will be passed on to Pechanga based upon EMWD and RCWD Rates, as described below, including operation and maintenance costs of RCWD for delivery of the Imported Water through RCWD's intervening system, as follows:

(a) *EMWD Rates.* EMWD will bill RCWD for deliveries at its various turnouts, including deliveries of Imported Water made to Pechanga through RCWD at the ESAA Delivery Point. Such billing shall include a nominal per acre-foot EMWD administrative overhead fee; charges incurred by EMWD under Metropolitan's current rate structure including Metropolitan's full-service, treated, volumetric rate for deliveries; readiness-to-serve charges ("*RTS*"); capacity charges ("*CC*"); and other Metropolitan charges as may be assessed (collectively, "*Water Delivery Costs*"). These charges will be determined as follows:

(i) RTS charges will be billed on a per acre-foot basis, twice annually at the time that Metropolitan bills EMWD.

(ii) CC will be based upon actual peaking demands for Imported Water delivery, measured in cubic feet per second, at the Pechanga Delivery Point.

(iii) Metropolitan may assess additional costs or fee components to all of its customers in the future, which are not yet defined, or may change the content, manner, and timing of billing its member agencies. Components of Metropolitan's rates and charges that comprise the Water Delivery Costs described herein are based upon Metropolitan's current rate structure and may be subject to change in the future. In the event Metropolitan alters its rate structure or assesses additional costs or fee components to all of its customers in the future, EMWD shall assess RCWD amended Water Delivery Costs that include Metropolitan's charges under any new rate structure in a manner that recovers costs equivalent to the components described herein, as well as any additional costs or fee components imposed by Metropolitan. This includes the proportionate penalties which may be assessed under Metropolitan's Water Supply Allocation Plan.

(b) *RCWD Rates.* RCWD's charge for ESAA delivery of imported water through its 1305 zone system from the ESAA Delivery Point to the Pechanga Delivery Point will be a unit dollar per acre-foot delivery rate to cover the proportional share of cost of operations, maintenance and replacement for transmission and distribution within RCWD's 1305 Zone. The rate will be updated annually. The rate will be no more than the charges for these items assessed to RCWD's 1305 Zone retail customers.

(c) *EMWD Rate Change.* In the event that deliveries of Imported Water are made over a billing period during which EMWD's rate for the sale and delivery of water changes, EMWD may cause the meters recording deliveries of water during such period to be read at the end of the period and the statement of charges for such deliveries of water may be based on a proration between the previous and new rate for the periods of time during which each were in effect as determined by EMWD.

(d) *Metropolitan Rate Change.* In the event Metropolitan makes changes to its rates or rate structure that may affect the amount or structure of EMWD's rates (including but not limited to the setting of new baselines for tiered deliveries), or assesses additional costs or fees on its customers, EMWD will work in good faith with Pechanga and RCWD to ensure any changes to EMWD's rates are passed on fairly and equitably to Pechanga and RCWD.

(e) *Metropolitan Tier 1 Allocation.* Metropolitan currently has a tiered rate structure, which may be amended over time. During periods of water supply allocation, use over an allocated amount is charged at a Tier 2 rate, the full service rate, plus an Allocation Surcharge for exceeding amounts available under an allocation. As Metropolitan will not provide an initial incremental Tier 1 allocation to EMWD (and therefore to RCWD) for Imported Water deliveries to Pechanga, Pechanga will establish its own Tier 1 maximum beginning the first year of deliveries and continuing over a five-year period, using a five-year rolling average thereafter. Alternatively, Pechanga may be required to establish an alternative methodology as may be adopted by Metropolitan from time to time for its member agencies. Such charge will be billed and paid for in accordance with this Section.

(f) *Exemption from Fees and Assessments.* Except as otherwise provided in this Agreement and the ESAA, EMWD and RCWD will not impose any property-related fee, assessment, tax or charge on the Consolidated Area for the delivery of Imported Water. In recognition of the sovereignty of Pechanga, no monetary lien will be imposed on Pechanga or the Reservation to secure payment of any fees, costs, or rates payable from Pechanga pursuant to this

Agreement, but delivery of Imported Water pursuant to this Agreement may be suspended until payment is made in full, including penalty and interest charges, pursuant to the RCWD Administrative Code.

6. Billing and Payment of Imported Water Charges. EMWD will itemize the incremental components of its monthly billing to RCWD that are associated with the Water Delivery Costs described in Section 5 of this Agreement. EMWD will maintain separate charge accounting for RCWD and Pechanga as distinct entities. RCWD will pass through Water Delivery Costs assessed by EMWD as well as its own charges for delivery of Imported Water to Pechanga.

(a) *Payment by RCWD to EMWD.* Except as otherwise provided in this Agreement, the terms and conditions of billing by EMWD and payment by RCWD under this Agreement are governed by the procedures established in the EMWD Administrative Code, at Title 5, Article 3, commencing with section 5.301, or any amendments thereto approved by the EMWD.

(b) *Payment by Pechanga to RCWD.* RCWD will bill Pechanga for Imported Water-related rates, charges, and fees. Except as otherwise provided in this Agreement or the Amended and Restated Groundwater Management Agreement, the terms and conditions of billing by RCWD and payment by Pechanga to RCWD under this Agreement are governed by the procedures established in Part III, Chapter 1, Section 1.6 of the RCWD Administrative Code.

(c) *Deposit to Secure Payment to RCWD.* Pechanga will provide a deposit equal to one-twelfth (1/12) of the prior year's billings to be reviewed and adjusted annually and held by RCWD in an interest-bearing account as assurance of payment for invoices delivered pursuant to Section 5(b) above. This deposit will be held by RCWD and will be drawn upon should Pechanga fail to make timely payments after notice to Pechanga of an alleged delinquency payment and an opportunity for Pechanga to cure. If RCWD draws down on the deposit, RCWD will notify Pechanga within five (5) business days in writing that the deposit must be replenished. Pechanga must replenish the deposit within five (5) business days after written notification from RCWD. Failure to replenish the deposit and keep the account paid on a current basis will result in suspension of Imported Water delivery pursuant to Section 5(f) above.

7. Metering. All Imported Water and groundwater delivered by RCWD to Pechanga will be metered at the Pechanga Delivery Point. RCWD shall determine the total amount of Imported Water and groundwater delivered to Pechanga under Section 2.3 of the Amended and Restated Groundwater Management Agreement and will deduct the amount of groundwater delivered to determine the net amount of Imported Water delivered to Pechanga. RCWD will report to

Pechanga its determination of the net amount of Imported Water delivered to Pechanga and provide Pechanga three (3) business days to review and comment on such determination prior to reporting to EMWD delivery volume and flow information for Imported Water deliveries provided by RCWD to Pechanga. Meter readings will be made on or about the last day of each calendar month for billing purposes. Meters and control valves on water lines of RCWD will be owned and operated by RCWD. Pechanga may have any meter through which Imported Water is delivered from RCWD's facilities at the Pechanga Delivery Point tested by RCWD. Pechanga will have the right to be represented by a qualified observer at and during any such test. In the event that any such test shall disclose an error exceeding two (2) percent, an adjustment shall be made in charges to Pechanga, covering the known or estimated duration of such error, but in no event exceeding six (6) months, and the expenses of such test shall be borne by RCWD; otherwise such expense shall be borne by Pechanga. If necessary to make any further adjustments to the volume and flow information as allocated between Imported Water and groundwater deliveries as a result of metering errors, such reconciliation shall be done at least annually.

8. Pechanga Responsibilities for Facilities. Pechanga will be responsible, at its cost, for the design, installation, and construction of any facilities on its side of the Pechanga Delivery Point, or any subsequently noticed delivery point, required to receive deliveries of water from RCWD under this Agreement. Pechanga will provide Metropolitan, EMWD, and RCWD with reasonable opportunity to review and comment on any such designs and will incorporate any Metropolitan, EMWD, and RCWD comments reasonably required to ensure that such facilities may be operated without damage to Metropolitan's, EMWD's, or RCWD's system.

9. Water Delivery Interruptions. Whenever repairs or maintenance of Metropolitan's, EMWD's, or RCWD's system is required, in the opinion of the General Manager of Metropolitan, EMWD or RCWD, respectively, will require suspension of delivery of Imported Water at any delivery points. Such delivery may be suspended without liability on the part of Metropolitan, EMWD or RCWD. In addition to shutdowns, Imported Water may from time to time be unavailable, or available only in limited quantities at a service connection because of reductions or eliminations in flow. Reasons for shutdowns may change from time to time. EMWD and RCWD will exercise reasonable efforts to provide advance notice to Pechanga of any interruption that is not an emergency. Pechanga will maintain the capability within its onsite water system to handle planned or unplanned Imported Water delivery interruptions.

10. Termination.

10.1. Settlement Act. This Agreement shall be automatically terminated in the event: 1) the waivers and releases of claims authorized by the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Act (Subtitle D of Title III of Public Law 114-322,) expire pursuant to Section 3407(g) of said Act; 2) Pechanga seeks congressional authorization for off-Reservation transfer or sale of water sold and delivered by EMWD to Pechanga pursuant to the ESAA and this Agreement; or 3) upon expiration of the Act pursuant to Section 3412 of the Act.

10.2 Off Reservation Uses. Except for uses allowed in Preamble I and Sections 3.1 and 3.9 of the ESAA, EMWD may terminate this Agreement in the event Pechanga sells, exchanges, or uses Imported Water outside the Consolidated Area or its Tribal Water Right outside the Reservation.

11. Allocation of Liability.

(a) RCWD and its officers, agents, and employees shall not be liable to Pechanga or any third party by reason of RCWD's obligations under this Agreement for (i) the control, carriage, handling, use, disposal, or distribution of, or any limitations to the use, disposal or distribution of such Imported Water that may be imposed by any regulatory body or other third party on Imported Water delivered to Pechanga under this Agreement after such Imported Water has been received by or on behalf of Pechanga at the Pechanga Delivery Point, or (ii) any claim of damage of any nature whatsoever (including but not limited to property damage, personal injury or death) arising out of or connected with the provision of or any failure to deliver Imported Water to Pechanga. Pechanga shall, and hereby does, indemnify, defend and hold harmless RCWD and its officers, agents, and employees from any and all such damages or claims of damages and shall reimburse RCWD for costs of repair of RCWD's facilities and other damages resulting from the operations of Pechanga.

(b) Pechanga and its officers, agents, employees and members shall not be liable to RCWD or any third party by reason of Pechanga's status as purchaser under this Agreement, for any claim of damage of any nature whatsoever (including property damage, personal injury or death) arising out of or connected with the control, carriage, handling, use, disposal, or distribution of, Imported Water prior to such Imported Water being delivered to the Pechanga

Delivery Point, excepting, however, claims by RCWD for costs of repair to RCWD's facilities and other damages resulting from the operations of Pechanga.

12. Notices. All notices required to be given hereunder shall be in writing and may be given in person, by electronic mail transmission, by facsimile transmission, or by United States mail postage prepaid, and shall become effective at the earliest of actual receipt by the Party to whom the notice is given, when delivered to the designated address of the party or to such other address or addressee as such Party may from time to time designate in writing.

If to Pechanga:

Mark Macarro
Chairman
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593
Fax: (951) 537-8332
Email: mark@pechanga-nsn.gov

With a copy to:

General Counsel
Pechanga Band of Luiseño Indians
P.O. Box 1477
Temecula, CA 92593
Fax: (951) 693-2293
Email: sbodmer@pechanga-nsn.gov

And to:

Donald R. Pongrace
Akin Gump Strauss Hauer & Feld LLP
1333 New Hampshire Avenue, NW
Suite 400
Washington, DC 20036
Fax: (202) 887-4288
Email: dpongrace@akingump.com

If to RCWD:

General Manager
Rancho California Water District
42135 Winchester Road
Temecula, CA 92590
Fax: (951) 296-6860
Email: armstrongj@ranchowater.com

And to:

James Gilpin
Best Best & Krieger LLP
655 West Broadway
15th Floor
San Diego, CA 92101
Fax: (619) 233-6118
Email: James.Gilpin@bbklaw.com

If to EMWD:

Paul D. Jones, II
General Manager
Eastern Municipal Water District
2270 Trumble Road
P.O. Box 8300
Perris, CA 92572-8300
Fax: (951) 928-6112
Email: jonesp@emwd.org

And to:

Steven P. O'Neill
Olivarez, Madruga, Lemieux & O'Neill
4165 East Thousand Oaks Boulevard, #350
Westlake Village, CA 91362
Fax: (805) 495-2787
Email: steve@lemieux-oneill.com

13. Amendments: Waivers: No amendment, modification, waiver, replacement, termination or cancellation of any provision of this Agreement will be valid, unless the same is in writing and signed by the Parties. No waiver by a Party of any breach by the other Party of any of the terms or conditions of this Agreement, or of any right of such Party hereunder, shall be construed as a waiver of any subsequent breach by the other Party of the same or other terms or conditions, or of the future exercise by such Party of the same or any other right hereunder. Neither the failure nor any delay on the part of a Party to exercise any right or remedy under this Agreement will operate as a waiver thereof, nor does any single or partial exercise of any right or remedy preclude any other or subsequent exercise of the same or of any other right or remedy.

14. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of California, without regard to any choice of laws or conflicts of laws provisions which would direct the application of the laws of any other jurisdiction. The venue for arbitration proceedings shall be Riverside County, California.

15. Dispute Resolution

(a) Pechanga is a sovereign Indian Nation, and as such it possesses sovereign immunity from suit. Nothing in this Agreement is or shall be deemed to be a waiver of Pechanga's sovereign immunity from suit, which immunity is expressly asserted, except that Pechanga agrees to waive its immunity for the limited and sole purposes of compelling arbitration by RCWD and EMWD and of enforcing arbitration of any decision rendered pursuant to the terms and conditions of this Agreement.

(b) Prior to pursuing any arbitration, each Party shall, whenever possible, attempt to resolve any grievances, complaints or disputes that are brought to its attention by the other Party. Each Party shall notify the other Party in writing of any material dissatisfaction with the other Party's performance at its address of record. Within ten (10) days of receipt of such notice, unless the problem has been resolved, the Parties shall meet and confer in good faith to determine what remedial action, if any, is necessary.

(c) In the event of any dispute between the Parties hereto arising under this Agreement, such dispute shall be submitted to mandatory binding arbitration, to be conducted in Riverside County, CA, pursuant to the Commercial Rules of the American Arbitration Association. Each Party shall initially pay its own arbitration costs and expenses, but the arbitrator may, in its discretion, include such costs and expenses, together with reasonable attorneys' fees, as part of the award to the prevailing party. Any award of the arbitrators may be submitted for enforcement to a court of competent jurisdiction located in Riverside County, CA.

(d) Judicial remedies are specifically limited to the enforcement of an award of money damages by arbitration pursuant to this Agreement; provided that the arbitrator(s) and/or court shall have no authority or jurisdiction to execute against any assets of Pechanga except to award the prevailing party the amounts paid or payable under this Agreement, costs of arbitration, court costs to enforce the arbitration decision and legal fees incurred during arbitration and any subsequent court proceedings to enforce the arbitration decision.

(e) Pechanga's limited waiver of its sovereign immunity as provided herein extends only to an arbitration, action to compel arbitration and action to confirm or enforce arbitration awards by RCWD and EMWD, and no other person or entity, for money damages in an amount not to exceed the amounts paid or payable under this Agreement, for Pechanga's breach of this Agreement.

16. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be considered an original but all of which, taken together, shall constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and dated as of the date first above written.

PECHANGA BAND OF LUISEÑO MISSION INDIANS

By:_____
Tribal Chairman

Date: 11/29/17

Approved as to form:

By:_____
General Counsel

RANCHO CALIFORNIA WATER DISTRICT

By:_____
General Manager

Date: 11/29/2017

Approved as to form:

By:_____
General Counsel

EASTERN MUNICIPAL WATER DISTRICT

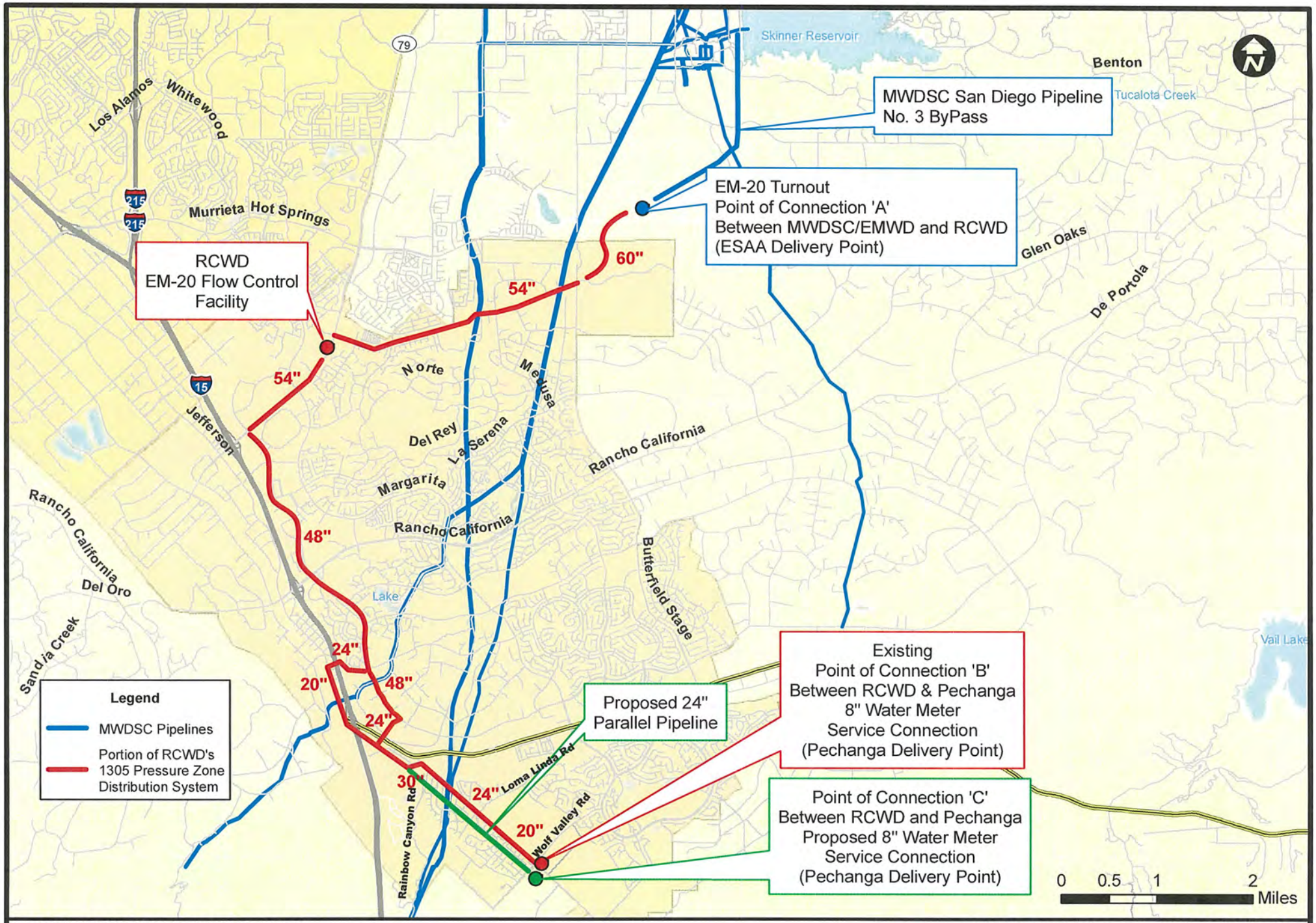
By:_____
General Manager

Date: 11.22.17

Approved as to form:

By:_____
General Counsel

Exhibit H-1



RANCHO CALIFORNIA WATER DISTRICT

42135 Winchester Road - Temecula - CA - 92590 - (951) 296-6900

EXHIBIT **H-1**

Geographic Information Services

SUBJECT:

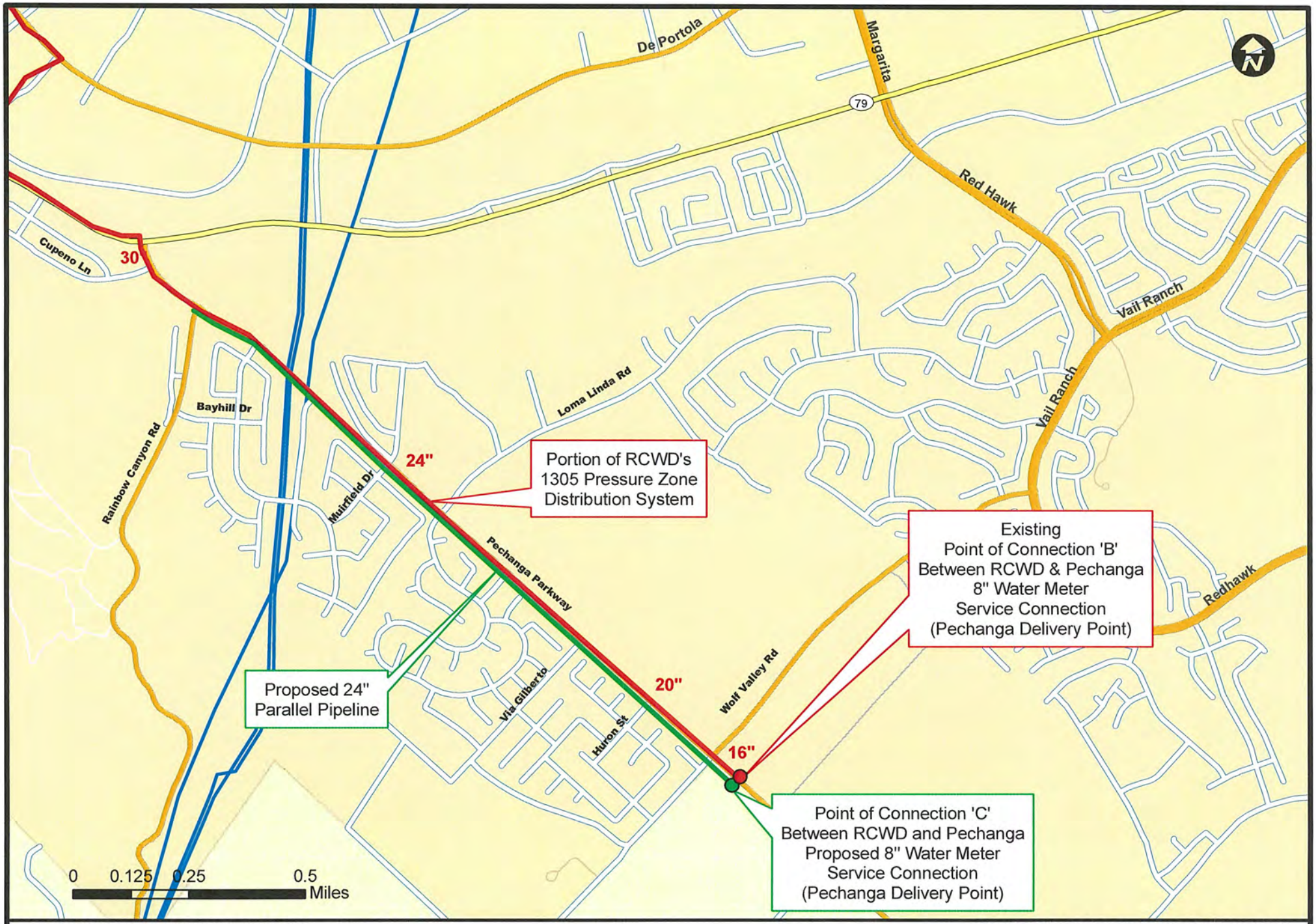
ESAA Water Delivery Agreement

SHEET **1** OF 1 SHEETS

PREPARED BY: *J. Gonzalez*

SCALE: *As Shown*

Exhibit H-2



RANCHO CALIFORNIA WATER DISTRICT

42135 Winchester Road - Temecula - CA - 92590 - (951) 296-6900

EXHIBIT **H-2**

Geographic Information Services

SCALE: *As Shown*

SUBJECT:

ESAA Water Delivery Agreement

SHEET **1** OF 1 SHEETS

PREPARED BY: *I. Gonzalez*

Pechanga Tribal Government

Pechanga Indian Reservation

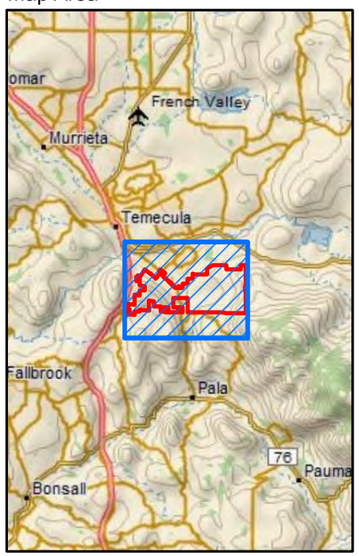
- Highways
- Sections
- Counties
- Kelsey Tract
- Original Boundary
- Pechanga Reservation

N

0 2,500 5,000 Feet

1 inch = 2,500 feet

Map Area



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WAIVER OF CLAIMS BY THE BAND AGAINST THE UNITED STATES

This Waiver of Claims dated as of November 29, 2017, is entered into by the Pechanga Band of Luiseño Indians, on behalf of itself and the members of the Band (but not tribal members in their capacities as Allottees), in return for recognition of the Tribal Water Right and other benefits as set forth in the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Agreement, dated as of November 29, 2017 and in accordance with the commitments under said Pechanga Settlement Agreement and pursuant to the authorization granted in section 3407(a)(3) of the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Act.

1.0 DEFINITIONS

Capitalized terms in this Waiver of Claims that are not expressly defined herein shall have the same meaning as in the Pechanga Settlement Agreement or, if not defined in the Pechanga Settlement Agreement shall have the same meaning as in the Act. For purposes of this Waiver of Claims, the following terms shall have the meanings set forth below:

1.1 "Act" shall mean the Pechanga Band of Luiseño Mission Indians Water Rights Settlement Act, Subtitle D of Title III of Public Law 114-322.

1.2 "Adjudication Court" shall mean the United States District Court for the Southern District of California, which exercises continuing jurisdiction over the Adjudication Proceeding.

1.3 "Adjudication Proceeding" shall mean litigation initiated by the United States regarding relative water rights in the Santa Margarita River Watershed in United States v. Fallbrook Public Utility District et. al., Civ. No. 3:51-cv-01247 (S.D.C.A.), including any litigation initiated to interpret or enforce the relative water rights in the Santa Margarita River Watershed pursuant to the continuing jurisdiction of the Adjudication Court over the Fallbrook Decree.

1.4 "Allottee" shall mean an individual who holds a beneficial real property interest in an Indian allotment that is located within the Reservation and held in trust by the United States.

1.5 "Band" shall mean Pechanga Band of Luiseño Mission Indians, a federally recognized sovereign Indian tribe that functions as a custom and tradition Indian tribe, acting on behalf of itself and its members, but not acting on behalf of members in their capacities as Allottees.

1.6 "Claims" shall mean rights, claims, demands, actions, compensation, or causes of action, whether known or unknown.

1.7 "Enforceability Date" shall mean the date on which the Secretary publishes in the Federal Register the statement of findings described in section 3407(e) of the Act.

1.8 "Fallbrook Decree" shall mean the "Modified Final Judgment and Decree", entered in the Adjudication Proceeding on April 6, 1966, including all court orders, interlocutory judgments, and decisions supplemental to the "Modified Final Judgment And Decree", including Interlocutory Judgment No. 30, Interlocutory Judgment No. 35, and Interlocutory Judgment No. 41.

1.9 "Indian tribe" has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304).

1.10 "Pechanga Settlement Agreement" shall mean the Pechanga Settlement Agreement, dated November 29, 2017, together with the exhibits to that agreement, entered into by the Band, the United States on behalf of the Band, its members and Allottees, MWD, EMWD, and RCWD, including the Extension of Service Area Agreement, the ESAA Capacity Agreement and the ESAA Water Delivery Agreement.

1.11 "RCWD" shall mean the Rancho California Water District organized pursuant to section 34000 et seq. of the California Water Code, which term includes all real property owners for whom RCWD acts as an agent pursuant to an agency agreement.

1.12 "Reservation" shall mean the land depicted on the map attached to the Pechanga Settlement Agreement as Exhibit I.

1.13 "Santa Margarita River Watershed" shall mean the watershed that is the subject of the Adjudication Proceeding and the Fallbrook Decree.

1.14 "Subparagraph" shall mean a subparagraph of this Waiver of Claims.

1.15 "Tribal Water Right" shall mean the water rights ratified, confirmed, and declared to be valid for the benefit of the Band and the Allottees, as set forth and described in section 3405 of the Act.

1.16 "United States" shall mean the United States or the United States of America acting in its capacity as trustee for Pechanga, its members and Allottees.

1.17 "Waiver of Claims" shall mean this waiver of claims.

2.0 WAIVER OF CLAIMS

Subject to the retention of rights set forth in Subparagraph 3.0 hereof, in return for recognition of the Tribal Water Right and other benefits as set forth in the Pechanga Settlement Agreement and the Act, the Band hereby waives and releases:

2.1 All Claims against the United States (including the agencies and employees of the United States) relating to Claims for water rights in, or water of, the Santa Margarita River Watershed that the United States, acting in its capacity as trustee for the Band, asserted, or could have asserted, in any proceeding, including the Adjudication Proceeding, except to the extent that those rights are recognized in the Pechanga Settlement Agreement and the Act;

2.2 All Claims against the United States (including the agencies and employees of the United States) relating to damages, losses, or injuries to water, water rights, land, or natural resources due to loss of water or water rights (including damages, losses or injuries to hunting, fishing, gathering, or cultural rights due to loss of water or water rights, Claims relating to interference with, diversion, or taking of water or water rights, or Claims relating to failure to protect,

acquire, replace, or develop water, water rights, or water infrastructure) in the Santa Margarita River Watershed that first accrued at any time up to and including the Enforceability Date;

2.3 All Claims against the United States (including the agencies and employees of the United States) relating to the pending litigation of Claims relating to the water rights of the Band in the Adjudication Proceeding; and

2.4 All Claims against the United States (including the agencies and employees of the United States) relating to the negotiation or execution of the Pechanga Settlement Agreement or the negotiation or execution of the Act.

3.0 RESERVATION OF RIGHTS AND RETENTION OF CLAIMS BY THE BAND

Notwithstanding this Waiver of Claims, the Band, on behalf of itself and the members of the Band, retains:

3.1 all Claims for enforcement of the Pechanga Settlement Agreement and the Act;

3.2 all Claims against any person or entity other than the United States, including Claims for monetary damages;

3.3 all Claims for water rights that are outside the jurisdiction of the Adjudication Court;

3.4 all rights to use and protect water rights acquired on or after the Enforceability Date; and

3.5 all remedies, privileges, immunities, powers, and Claims, including Claims for water rights, not specifically waived and released pursuant to this Waiver of Claims.

4.0 EFFECTIVE DATE

4.1 This Waiver of Claims shall take effect on the Enforceability Date.

IN WITNESS WHEREOF, the Band has executed this Waiver of Claims as of the day and year signed below:

PECHANGA BAND OF LUISEÑO MISSION INDIANS

By: _____

Its: TRIBAL CHAIRMAN

Dated: 11/29/17

Attest: _____

Appendix G: Water Shortage Contingency Plan



April 2026

Rancho California Water District

Water Shortage Contingency Plan

PUBLIC DRAFT

Revised: June 11, 2026 – Ordinance No. 2026-6-X
Revised: June 10, 2021 – Ordinance No. 2021-6-1
Revised: June 11, 2015 – Ordinance No. 2015-6-1
Revised: March 12, 2015 – Ordinance No. 2015-3-1
Revised: August 14, 2014 – Resolution No. 2014-8-1
Revised: June 11, 2009 – Resolution No. 2009-6-19
Revised: July 10, 2008 – Resolution No. 2008-7-4
Adopted: June 8, 2006 – Resolution No. 2006-6-16

2775 North Ventura Road, Suite 202
Oxnard, California 93036
805-973-5700
FAX: 805-973-1440

Water Shortage Contingency Plan

PUBLIC DRAFT

April 23, 2026

Prepared for

Rancho California Water District
42135 Winchester Road
Temecula, CA 92590

K/J Project No. 2544231*00

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Acronyms

The following abbreviations and acronyms are used in this report.

AB	Assembly Bill
Act	Urban Water Management Planning Act
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reading
AWE	Alliance for Water Efficiency
AWWA	American Waterworks Association
BMPs	Best Management Practices

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CII	commercial institutional and industrial customers
CWC	California Water Code
DDW	State Water Resources Control Board Division of Drinking Water
District	Rancho California Water District
DWR	Department of Water Resources
ECP	Emergency Communications Plan
EMWD	Eastern Municipal Water District
EOP	Emergency Operations Plan
ERP	Emergency Response Plan
GIS	Geographic Information System
LHMP	Local Hazard Mitigation Plan
MWD	Metropolitan Water District of Southern California
Rancho Water	Rancho California Water District
SRRRA	Santa Rosa Regional Resources Authority
SWP	State Water Project
UWMP	Urban Water Management Plan
Western Water	Western Municipal Water District
WSAP	Metropolitan Water District of Southern California's Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan

Section 1: Introduction

This plan documents the Rancho California Water District's Water Shortage Contingency Plan (WSCP) and Emergency Response Plan (ERP) per the requirements of the Urban Water Management Planning Act, Section 10632 of the California Water Code (CWC).

1.1 Declaration of Purpose of the Water Shortage Contingency Plan

For more than 60 years, Rancho California Water District (Rancho Water/District) has remained steadfast in its commitment to provide a reliable supply of high-quality water, wastewater, and reclamation services. Through leadership and representation, and working closely with its neighboring agencies, the District continues to plan for and meet the ever-changing needs of a growing and diverse community.

Rancho Water has taken purposeful and consistent actions to diversify the water supplies available to the Rancho Water service area while improving the efficiency of the District's operations and encouraging efficiency by customers. Because of those actions, Rancho Water hopes to avoid implementation of any measures within this WSCP but, in accordance with CWC Section 10632, and because of the responsibility for conserving the available water supply and protecting the integrity of water supply facilities (infrastructure), Rancho Water has prepared this WSCP, as a contingency measure. The WSCP evaluates appropriate actions to determine when a shortage exists, including in times of drought, water supply reductions from wholesalers, failure of water distribution systems, other emergencies, and regulatory statutes, rules, and requirements by state and federal agencies. This WSCP puts particular emphasis on the protection of public health, sanitation, fire protection, and public welfare. As such, this WSCP adopts regulations and restrictions on certain water use to conserve and manage the area's unique water resources, which are essential to ensure the continued viability of the community.

The purpose of this WSCP is to:

1. Monitor and compare anticipated supplies and demands consistent with Water Code Section 10632(a)(2).
2. Keep water use within supply and delivery capability.
3. Define procedures to be used when supply cannot meet demand or continuing pumping will result in harm to the supply source.
4. Familiarize all of Rancho Water's customers (residential, business, industrial, institutional/governmental and others) with procedures to be implemented when voluntary or mandatory water restrictions are in effect.

This WSCP has been developed in accordance with CWC Section 10632. The Code requires that the WSCP demonstrate the ability of an agency to meet demands under a supply shortage greater than 50 percent. This WSCP is an update of the WSCP adopted in June 2021 and is undertaken with an understanding of the general trends in water use, as well as an understanding of the developments and challenges of future water supplies. Of importance to this WSCP is "efficient" use of water, as encapsulated by the conservation standards in the *Making Water Conservation a California Way of Life* Regulation. The combination of implementation this regulation, , efforts to reduce outdoor water use, updates to the plumbing

code, and messaging promoting water conservation have resulted in a continuous downward trend in per capita water use in the Rancho Water service area. These reductions also Rancho Water customers' long-standing commitment to water conversation, through adoption of more efficient appliances, irrigation practices, and landscapes over time. This WSCP recognizes that, as customers become more efficient, it is harder to reduce demand with voluntary restrictions alone and it may be necessary to consider involuntary measures.

1.2 Legal Authority

The District has the legal authority to implement and enforce its WSCP. California Constitution Article X, Section 2 and CWC, Section 100 provide that water must be put to beneficial use, the waste or unreasonable use or unreasonable method of use of water shall be prevented, and the conservation of water is to be exercised with a view of the reasonable and beneficial use thereof in the interest of the people and the public welfare. Sections of CWC Chapter 3, commencing with Section 350 of Division 1, provide the authority for the governing body of a water agency to declare a water shortage and to adopt and enforce water conservation restrictions. (CWC §§ 350-359, 375-378.0).

The District's seven-member Board of Directors (Board) serves as its governing body and is charged with the management of, and granted the authority to conduct, the business and affairs of the District. As a public agency, the Board is subject to the statutory authority granted it through the CWC (Section 35300). Powers and legal authority are described fully in Section 3 of the District's Administrative Code. Activation of the WSCP is made upon recommendation of the General Manager. The authority of the General Manager and their relationship to the Board is also described in the District's Administrative Code.

If necessary, the District shall declare a water shortage emergency in accordance with CWC Chapter 3 of Division 1. Having declared a water shortage, the District has broad authority to implement and enforce regulations and restrictions for managing a water shortage. Per CWC Section 375(a):

> "Notwithstanding any other provision of the law, any public entity which supplies water at retail or wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity may, by ordinance or resolution adopted by a majority of the members of the governing body after holding a public hearing upon notice and making appropriate findings of necessity for the adoption of a water conservation program, adopt and enforce a water conservation program to reduce the quantity of water used by those persons for the purpose of conserving the water supplies of the public entity."

The water shortage contingency measures of this WSCP shall apply to all persons, customers, and property using water provided by the District. The terms "persons" and "customers" used in this WSCP include individuals, home and property owners, corporations, businesses, agencies, associations, and all other legal entities. A declaration of a water shortage condition as outlined below shall become effective immediately and shall be made by public announcement and published in a newspaper of general circulation.

1.3 Coordination with Wholesalers, Cities, and County of Riverside

When evaluating supplies, Rancho Water will coordinate with its wholesale agencies, including Western Municipal Water District (Western Water) and Eastern Municipal Water District (EMWD).

In the event that a shortage is declared, Rancho Water will coordinate with EMWD, Western Water, the City of Murrieta, the City of Temecula, and the County of Riverside for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code. This will be necessary to ensure efficient regional water management during periods of water supply shortage. An up-to-date list of contacts at each agency, with all pertinent information, is maintained by the District's Public Information Officer, who has developed the appropriate protocols.

1.4 Plan Preparation, Adoption, Submittal and Availability

the 2025 WSCP provides an update to the existing WSCP, adopted in June, 2021. Rancho Water began preparation of this update in September 2025. The public hearing for the Water Shortage Contingency Plan will be noticed in two local newspapers (The Press-Enterprise and the Californian), as prescribed in Government Code 6066, and will include the time and place of the hearing [text to be updated between draft and final]. Interested parties, including other local agencies, will be notified of the public hearing [text to be updated between draft and final]. The 2025 WSCP will be made available from the Rancho Water website for public inspection prior to the public hearing, so that comments could be received and discussed by the Board of Directors ahead of the adoption hearing [text to be updated between draft and final].

The final draft of the Plan will be adopted by the Board of Directors of Rancho California Water District by Resolution No. 2026-0XX (provided in Appendix A) and will be submitted to the Department of Water Resources (DWR) within 30 days of the approval hearing [text to be updated between draft and final]. Additionally, the adopted plan will be made available as required by the Water Code hearing.

Urban water suppliers are required to report and submit information related to the Water Shortage Contingency Plan in standardized tables developed by DWR. These standardized tables are provided as Appendix B of this document.

1.5 Relationship to the 2025 Urban Water Management Plan

Water Code Section 10632(a) requires that every urban water supplier prepare and adopt a WSCP as part of its Urban Water Management plan (UWMP). While the WSCP is a stand-alone document, it is updated and adopted in concert with the UWMP. Content of the WSCP is informed by the analysis of water supply reliability conducted pursuant to Water Code Section 10635 (contained in the 2025 UWMP). Tables and data from the 2025 UWMP are appended to this WSCP.

Rancho Water has traditionally had five umbrella water shortage stages. The CWC requires six water shortage stages be included in an UWMP, corresponding to shortages of 10, 20, 30, 40, 50 percent, and greater than 50 percent. The District has opted to retain its five stages and provide a crosswalk demonstrating the correlation between the District's five stages and the shortage stages required by the CWC and UWMP, as shown below:

Table 1-1
Correlation Between the District's Stages and 2025 UWMP

District Shortage Stage	CWC Standard Shortage Stage	Targeted Demand Reduction/Supply Enhancement
1 – Water Supply Watch	Not Applicable	Not Applicable
2 – Water Supply Alert	Not Applicable	Not Applicable
3 – Water Supply Warning		
3a	Not Applicable	Not Applicable
3b	1	Up to 10 percent
3c	2	Up to 20 percent
4 – Extreme Water Supply Warning		
4a	3	Up to 30 percent
4b, 4c	4	Up to 40 percent
5 – Catastrophic Water Supply Emergency		
5a, 5b	5	Up to 50 percent
5c	6	Greater than 50 percent

The subdivided stages used by Rancho Water allow the District greater granularity than those in the CWC and allows the District to target different water use classes according to shortage severity. District Stages 1, 2, and 3a do not have volumetric goals associated with them, but instead target water waste and non-essential outdoor water use. At District Shortage Stage 3b and greater, Rancho Water anticipates meeting volumetric targets that align with the CWC.

Shortage stage declarations will be made commensurate with the level of shortage identified during the District's Annual Assessment (see Section 2). Stage 1, 2, and 3a will be declared if the District is experiencing short-term and long-term effects of recent and/or ongoing drought conditions. For all other stages, the declaration will be triggered when the District's Annual Assessment finds that demand is anticipated to exceed projected supply by the shortage percentages presented in Table 1-1.

1.6 Water Shortage Contingency Plan Refinement Procedures

The WSCP will be updated and refined as appropriate and needed following significant changes to Rancho Water's supply portfolio, or significant changes to the water allocation plans of its supply agencies, but no less than every 5 years. The WSCP is a living document and is intended to be responsive to the effects of the measures taken during water shortages. During a shortage declaration, the District will monitor and analyze usage, according to the customer classes affected to determine of reduction goals are met. The Executive Team or its designee(s) will determine if additional measures need to be taken and also if more restrictive water budget reductions should be in place to achieve savings goals. Notably, during District Stages 4a and 4b, the WSCP provides a range of budget reductions for residential users, allowing the team to refine reduction goals after analyzing actual usage. If needed, the General Manager will propose the recommended updates for Board approval. The District will continue to ensure that the WSCP continues to meet its goals: ensuring availability of water to protect public health, provide sanitation and fire protection, and general public welfare. Refinement of the WSCP will be done as a joint effort of the following departments:

- Engineering
- Reclamation
- Water Use Efficiency
- Finance
- Customer Service
- Public Information

Section 2: Procedures for Annual Water Supply and Demand Assessment

CWC Division 1, Section 350, states:

> "The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection."

The Annual Assessment procedures described herein are one tool used to determine if a water shortage is to be declared.

Additional provisions in Water Code Section 10632.1 require urban water suppliers such as Rancho Water to conduct an annual water supply and demand assessment ("Annual Assessment"), on or before July 1 of each year, which must be submitted to DWR. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its Annual Assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later. The requirement to perform the Annual Assessment began in July 2022.

Supply risks include climate variability, drought, and regulatory actions outside of the control of the District. Developing and maintaining a healthy water supply portfolio to serve its customers has always been an ongoing Rancho Water priority, to ensure Rancho Water is prepared for drought and water shortages. The District's water supply portfolio primarily is primarily imported (60–70%) and local groundwater (30–40%), with recycled water providing ~5–8% of total deliveries (included within the local share). While the District can theoretically pump more water in the event of a drought, this response action is reserved for the most severe, acute water shortage situations caused by catastrophic events. To mitigate non-catastrophic shortages, the District has the option of purchasing additional imported water.

Water supply projections and hydrologic conditions are significant components in deciding when a drought response is needed. The amount of the water supply shortage contributes to the severity of drought declared and the necessary level of response from Rancho Water and customers.

2.1 Timeline for Conducting the Annual Assessment

Table 2-1 provides targets for performing the Annual Assessment. The table outlines actions for the current year and one year of drought. By starting to plan in October, Rancho Water will get a snapshot of conditions and can begin lining up the resources to mitigate supply and b outreach to customers to manage demand. Major actions are proposed in February, when an initial estimate of supply is made and compared to demand. A final annual assessment is proposed in May. The Annual Assessment procedures are intended to serve as a guideline and, as such, may be modified based on conditions observed during the evaluation period.

Table 2-1
Calendar for Performing Annual Assessment

Target Date	Action
Oct	Begin preparation of the Annual Recommended Production Report, which identifies the sustainable yield (both local and artificial recharge) for the following fiscal year. Includes an assessment of climatological conditions.
Dec	Convene the District's Executive Team[1] to discuss the WSCP.
Dec – Jan	Monitor Water Supply from the District's sources. Monitor demand for the previous year.
Feb	Reach out to Western Water and EMWD to confirm allocations from MWD. Determine unconstrained demand. Determine if a shortage will exist for the coming year. If a shortage exists, determine the extent of the shortage.
Mar	If required, present findings to the Board. General Manager makes recommendation of a drought[2]. Board gives approval for shortage declaration[2]. Prepare Annual Assessment for submission to DWR. Determine shortage level and what prohibitions and restrictions will apply.
Apr	Continue public outreach. Declare water shortage (if needed) and inform customers of budget reductions and specific restrictions and prohibitions that apply.
May	Continue public outreach. Declare water shortage (if needed) and inform customers of budget reductions and specific restrictions and prohibitions that apply.
June	Continue public outreach. Finalize Annual Assessment and submit to DWR.
July-Nov	Continue public outreach. Monitor customer response to the water shortage declaration and update the annual supply procedures, as needed.

1. The District's Executive Team is led by the General Manager, and includes the Assistant General Manager, the Director of Administration, and the Director of Human Resources, as well as senior managers from the Engineering, Operations, Legislative Affairs, and Public Information departments.

2. The General Manager has the discretion to select response measures in proportion to the severity of the drought. In particular, the reduction levels required at the different stages represent a cap and provide some flexibility in determining the exact reduction that will be required for each of the District's customer classes in order to close the water shortage gap. If required, the recommendation will be made at the March Board Meeting and the Board will vote on the stage declaration, the levels of budget reduction and the relevant restrictions and prohibitions that will apply.

2.2 Factors Affecting Supply

Rancho Water's potable water supply sources include water imported through the Metropolitan Water District of Southern California (MWD) and local supplies. Availability of supplies can be constrained due to circumstances including, but not limited to, drought, natural disaster, acts of state legislation, and declarations made by MWD.

2.2.1 Imported Water

Imported water originates from outside of the Santa Margarita River Watershed and generally consists of supplies from the Colorado River and the State Water Project (SWP). This water is acquired from MWD via the District's member agencies: Western Water for the Santa Rosa Division, and EMWD for the Rancho Division. As a result, the District is subject to MWD's allocation plans and policies during a water shortage. Historically, imported water has accounted for approximately 60 to 70 percent of the District's total water supply, including both treated and untreated water. Untreated imported water is used by the District to artificially recharge the Pauba Valley Basin to enhance production.

2.2.1.1 Metropolitan Water District of Southern California Drought Management Efforts

MWD's drought management efforts include storage of water during periods of surplus and implementation of demand management measures to minimize the impacts of water shortages on Southern California water users.

In its 2020 Water Shortage Contingency Plan, MWD put together a policy framework that brought together many elements of past reliability planning, including the Integrated Water Resources Plan, the Water Surplus and Drought Management Plan, the Water Supply Allocation Plan, the Emergency Storage Objective, and the Seismic Risk Assessment and Mitigation Plan (MWD, 2021).

The Water Surplus and Drought Management Plan provides policy guidance for managing regional water supplies during surplus and shortage conditions. The Plan provides an overall vision for operational supply management and characterizes a flexible sequence of actions to minimize the probability of severe shortages and reduce the likelihood of extreme shortages. The Water Supply Allocation Plan is MWD's policy and formula for equitably allocating available water supplies to the member agencies during extreme water shortages when MWD determines it is unable to meet all its demands.

The MWD Emergency Storage Objective is a planning estimate for emergency storage representing the amount of water that Metropolitan would hold in storage for the region in preparation for a catastrophic earthquake that would damage the aqueducts that transport imported water supplies to Southern California.

The MWD Water Shortage Contingency Plan defines surplus and shortage as follows:

- Surplus: Supplies are sufficient to allow MWD to meet full service demands, make deliveries to all interruptible programs, and deliver water to regional and local facilities for storage.

- Shortage: Supplies are sufficient to allow MWD to meet full service demands and make partial or full deliveries to interruptible programs, sometimes using stored water and voluntary water transfers.
- Severe Shortage: Supplies are insufficient to meet full service demands and MWD is required to make withdrawals from storage, call on its water transfers, and possibly call for extraordinary drought conservation.
- Extreme Shortage: Supplies are insufficient to meet full-service demands and MWD is required to allocate its available imported supplies to its member agencies.

The following actions represent MWD's plan for dealing with supply shortages and the general order they would be implemented:

- Draw on storage and flexible supplies
    - Call on storage created in the Colorado River system through existing agreements with other agencies with water rights
    - Draw on SWP carryover storage
    - Draw on DWR flexible storage in Castaic Lake and Lake Perris
    - Draw on SWP Banking Programs
    - Utilize State Water Contractors Buyers Group for flexible supplies
    - Initiate Yuba Accord Dry-Year Purchase
    - Initiate flexible supplies with San Bernardino Valley Municipal Water District
- Draw on stored water in Diamond Valley Lake, Lake Mathews, Lake Skinner, and conjunctive use programs
- Call for extraordinary drought conservation and public education.
- Implement Water Supply Allocation Plan.

During severe water shortage situations when public information campaigns and enhanced conservation programs are insufficient to generate the needed demand reduction, MWD may find it necessary to temporarily limit and allocate supplies to its member agencies. The Water Supply Allocation Plan (WSAP) includes specific formulas for calculating MWD supply allocations to each member agency and includes implementation elements needed for administering water supply allocations. The WSAP allocates supplies based on the needs of the water agencies throughout the service area.

Rancho Water will work with water agencies affected by the implementation of measures described in these plans to determine its allocation of available MWD imported supply during shortages. Further, the District will effectively manage imported water purchases and when Allocation Surcharges are imposed on the District for exceeding allocations as a result of customers exceeding their water budgets during times when MWD implements its WSAP. Such excessive water use is a violation of the water shortage stages of this WSCP and is subject to Volumetric Penalties.

2.2.2 Groundwater

The annual supply capacity of the District's local sources is limited by the sustainable yield of the basin. Each year, the District audits resources at the conclusion of the water year (year ending September 30). The underlying philosophy guiding the audit has been, and continues to be, one of sustainable basin management. This involves operating the basin within sustainable yield limits to avoid creating a permanent overdraft or other undesirable condition, such as water quality degradation, reduction of long-term production capacity, or land subsidence. Determination of the amounts of water hydrologically available to the District is an ongoing process of constant evaluation and review.

In the event that the availability of local and/or imported water supplies is constrained, the District's options include: 1) to purchase more imported water, if available, and/or 2) to implement demand management actions as described in this WSCP.

2.2.3 Assessing Supply Available in Current Year and One Dry Year

The Executive Team will evaluate water supplies for the current fiscal year (the fiscal year in which the Annual Water Supply Assessment is being prepared) and the next year, assuming that the latter will be a dry year. For groundwater projections, the District will rely on the most recent annual Groundwater Production Report, an audit prepared from October through February that estimates the sustainable groundwater capacity for the upcoming fiscal year. Therefore, this annual sustainable yield of local groundwater and artificial recharge will be used to set the maximum amount of groundwater for the coming fiscal year.

For the imported supplies, the Executive Team will rely primarily on the previous year's usage (also reported in the monthly Operations Report) and communication with its wholesalers (EMWD and Western Water) to estimate available water for the coming year. Analysis of imported water will also consider variables that may impact supply for the next year, including, but not limited to, MWD imposed allocations, state-imposed allocations, and climatological and hydrologic data for the District's location. California *DWR's Current Conditions* website (https://water.ca.gov/Current-Conditions), the USDA's California Water Supply Outlook Report, and the annual Groundwater Production Report are three sources that can provide the Executive Team with information on conditions affecting the local supply: snowpack, runoff, and reservoir storage.

Other considerations for supply may include planned infrastructure projects, both within the District and for its suppliers. Table 2-2 summarizes the water sources and the factors to be considered.

Table 2-2
Annual Assessment of Supply

Water Source	Factors to be Evaluated for Current Year	Estimating Supply Assuming Subsequent Year is Dry
Imported: EMWD[1]	Planned allocation	Planned dry year allocation
	Regulatory limitations	Regulatory limitations
	Declaration of CWC Standard Shortage Stage by MWD or the State	Declaration of CWC Standard Shortage Stage by MWD or the State
Imported: Western Water[1]	Planned allocation	Planned dry year allocation
	Regulatory limitations	Regulatory limitations
	Declaration of CWC Standard Shortage Stage by MWD or the State	Declaration of CWC Standard Shortage Stage by MWD or the State
Local Groundwater	Sustainable yield per the Annual Groundwater Production Report	Sustainable yield per the Annual Groundwater Production Report
	Any constraints due to infrastructure or water quality	Any constraints due to infrastructure or water quality
Recycled Water: Santa Rosa Regional Resources Authority (SRRRA)	Wastewater flow projections to the Santa Rosa Water Reclamation Facility (SRWRF)	Projected recycled water production during a dry year
	Projected recycled water production	Any planned increases to the recycled water production
Recycled Water: EMWD	Existing Take-or-Pay Agreement	Projected Annual Recycled Water Right Agreement
	Agreed upon annual recycled water right entitlement	

1. The District receives imported SWP and Colorado River water from MWD via direct purchase agreements with EMWD and Western Water. However, because these agreements are still subject to allocations from MWD these allocations are included in the supply analysis and forecast.

After assessing supply by source, the WSCP will develop a summary of each water source available, for the upcoming fiscal year and subsequent fiscal year, assuming that the subsequent fiscal year is a dry year.

2.3 Factors Affecting Demand

Historically, water demand increases during hot, dry weather conditions, with the magnitude of the increase varying based on the number of consecutive dry years and the level of conservation measures imposed. Conversely, during cool, wet years, water demand has decreased due to reduced outdoor irrigation needs. Consistent with historical trends, almost all demands are anticipated to increase by approximately 4 to 5% during a dry year. The exceptions are the following uses: wheeling, other (fire flows and construction meters), and Santa Margarita River Discharge, which are expected to remain consistent with normal-year usage.

2.3.1 Assessing Demand in Current Year and One Dry Year

A starting point for determining customer demand will be the previous year's usage, along with the results of the District's most recent water demand projection study, which provides the District with Geographic Information Systems-based (GIS) parcel-level potable and recycled water demand projections for the next twenty-five years. The previous fiscal year's usage is available from the District's billing software and summarizes usage according to customer class and allocated water budget tiers. The Executive Team will utilize the previous and current fiscal year's usage, in conjunction with the growth projected in the most recent water demand projection study, to develop unconstrained demands for the next upcoming two fiscal years.

These demand projections will be refined by incorporating any specific development projects or District programs or regulations which will impact demand projections. The District will be monitoring compliance with the water use efficiency standards for *Making Water Conservation a California Way of Life* and taking actions to increase the efficiency of CII customers. Rancho Water will also collaborate with customers to comply with Assembly Bill 1572, which bans use of potable water for irrigating non-functional turf. These regulatory and programmatic changes continue to shift consumption patterns across the District and may affect potable water demand from year to year.

The unconstrained demands for the upcoming fiscal year will account for the current hydrogeologic conditions, and those conditions anticipated for the upcoming fiscal year. The unconstrained demands for the subsequent fiscal year will assume a dry year. Rancho Water will prepare a table summarizing the two fiscal year projections of unconstrained demand. Water demand for each customer class within the District's service area will be included.

2.4 Criteria for Water Shortage Stages

The Executive Team will determine if a shortfall exists based on the supply and demand analysis and the criteria described below.

This section provides the locally applicable evaluation criteria for each of the District's Water Shortage Stages. CWC, Section 10632(a)(3)(B) authorizes Rancho Water to use water shortage stages that differ from the standard six (6) stages provided that it provides a narrative or graphic (see Table 1-1 above) that describes the relationship to the six standard shortage levels prescribed by the CWC.

2.4.1 Stage 1 – Water Supply Watch Criteria

The term Water Supply Watch acknowledges that while near-term regional supply and storage conditions may improve from time to time due to wet weather, there are continued long-term challenges that warrant continued wise and efficient use of water. These include ongoing regulatory restrictions on pumping from the Bay-Delta region for the SWP, which provides a significant portion of Rancho Water's imported water supply. In addition, Rancho Water's Mediterranean climate and average rainfall of fourteen inches in its service area make ongoing efficient water use imperative. Stage 1 has long been a part of the District's ongoing water conservation efforts and was adopted in response to the State mandate that retail water agencies in California work with customers to achieve a 20 percent reduction in per capita water

use by the year 2020. Stage 1 does not correspond to any CWC Standard Shortage Stage or MWD WSCP Shortage Stage.

2.4.2 Stage 2 – Water Supply Alert Criteria

There is a probability that the District may continue to experience short-term and/or long-term effects from recent or ongoing drought conditions. Additional voluntary water use reduction measures will be called upon during Stage 2. Some non-essential outdoor water use restrictions in the residential, commercial, institutional, and industrial (CII), dedicated landscape, and agricultural sectors may be implemented. Stage 2 does not correspond to any CWC Standard Shortage Stage or MWD WSCP Shortage Stage.

2.4.3 Stage 3 – Water Supply Warning Criteria

Stage 3 is comprised of multiple sub-stages (3a, 3b, and 3c), which correspond with up to a 20 percent shortfall. Water supply shortages (local or imported) for the District are expected, or the District is mandated by a regulatory agency with jurisdiction over the District, or MWD, to reduce water use up to 20 percent. Stage 3a does not correspond to any CWC Shortage Stage, while Stages 3b and 3c correspond to CWC Shortage Stages 1 and 2. Some restrictions on certain non-essential outdoor residential, CII, agricultural, and dedicated landscape water use will be implemented. The District will work to achieve an appropriate balance of water budget decreases to residential and dedicated landscape customers as water shortages increase. Volumetric penalties for excessive water usage may be imposed.

2.4.4 Stage 4 – Extreme Water Supply Warning Criteria

Stage 4 is comprised of multiple sub-stages (4a, 4b, and 4c), which correspond to supply shortfalls greater than 20 percent but less than 40 percent. Water supply shortages (local or imported) for the District are expected to worsen, or the District is mandated by a regulatory agency with jurisdiction over the District, or MWD, to reduce water use greater than 20 percent, but less than 40 percent. This may correlate to MWD's WSDM Plan stage of "Extreme Shortage". Stage 4a corresponds to CWC Standard Shortage Stage 3, while Stages 4b and 4c correspond to CWC Standard Shortage Stage 4. More severe restrictions on non-essential outdoor water use will be implemented. The District will work to achieve an appropriate balance of water budget decreases to all customer classes including residential, dedicated landscape, CII, agricultural, and agricultural/residential customers as water shortages increase. Volumetric penalties for excessive water usage may be imposed.

2.4.5 Stage 5 – Water Supply Emergency Criteria

Stage 5 is comprised of multiple sub-stages (5a, 5b, and 5c), which correspond to shortfalls of up to 50 percent and greater. Water supply shortages (local or imported) for the District are expected to further worsen, or the District is mandated by a regulatory agency with jurisdiction over the District, or MWD, to reduce water use up to 50 percent or greater. This may correlate to MWD's WSDM Plan stage of "Extreme Shortage" or may be as a result of an emergency situation, resulting in the inability of the District's water distribution system to deliver all the District's supply. Stages 5a and 5b correspond to CWC Standard Shortage Stage 5, while Stage 5c corresponds to CWC Standard Shortage Stage 6. Restrictions on all non-essential outdoor

and indoor water use will also be implemented. The District will work to achieve an appropriate balance of water budget decreases to all customer classes as water shortages increase. Volumetric penalties for excessive water usage may be imposed.

2.5 Analysis of Water Supply Reliability

The Executive Team will compare the supply projections from Section 2.2 to the demand projections in Section 2.3, in order to determine if a supply shortage is anticipated, the level of shortage, and, if necessary, prepare to implement its water shortage contingency plan. In addition to determining shortage (through the Annual Assessment), the CWC Section 10632(a)(1) instructs the WSCP to include an "analysis of water supply reliability conducted pursuant to Section 10635" which requires urban water suppliers like the District to assess the reliability of its water service to its customers during normal, dry, and multiple dry water years. This analysis was conducted in the 2025 Urban Water Management Plan and is summarized below. Consistent with the code, Tables 2-3 through 2-5 compare the total water supply sources available to the District with the long-term total projected water use over the next 20 years, in five-year increments, for a normal year, a single dry year, and a drought lasting five consecutive years. Methodologies for determining demand and supplies are referenced within the tables and provided in the publicly available 2020 UWMP. As shown in the tables, the District will have sufficient water supply to meet the projected demands under all the scenarios considered.

Table 2-3
Comparison of Supplies and Demands in Average/Normal Year (AF)

Water Supply Source	2030	2035	2040	2045	2050
Imported Treated and Untreated Water	56,650	58,250	60,300	62,400	64,650
Groundwater - Native	22,000	22,000	22,000	22,000	22,000
Recycled Water [b]	4,237	4,295	4,353	4,412	4,472
Groundwater Bank [c]	0	0	0	0	0
Total Supplies	***82,887***	***84,545***	***86,653***	***88,812***	***91,122***
Estimated Demands	***73,263***	***74,626***	***76,270***	***77,964***	***79,712***
Difference (Supply - Demand)	*9,625*	*9,919*	*10,384*	*10,848*	*11,410*
Difference as % of Demand	*13%*	*13%*	*14%*	*14%*	*14%*

Table 2-4
Comparison of Supplies and Demands in Single-Dry Year (AF)

Water Supply Source	2030	2035	2040	2045	2050
Imported Treated and Untreated Water	56,650	58,250	60,300	62,400	64,650
Groundwater - Native	22,000	22,000	22,000	22,000	22,000
Recycled Water	4,237	4,295	4,353	4,412	4,472
Groundwater Bank [a]	4,000	4,000	4,000	4,000	4,000
Total Supplies	***86,887***	***88,545***	***90,653***	***92,812***	***95,122***
Estimated Demands	***76,463***	***77,891***	***79,614***	***81,390***	***83,223***
Difference (Supply - Demand)	*10,425*	*10,653*	*11,039*	*11,422*	*11,900*
Difference as % of Demand	*14%*	*14%*	*14%*	*14%*	*14%*

a Banked groundwater is reserved for dry conditions; 4,000 AF assumed available in dry years

Table 2-5
Comparison of Supplies and Demands in Multiple-Dry Years (AF)

		2030	2035	2040	2045	2050
First year	Supply totals [a]	86,887	88,545	90,653	92,812	95,122
	Demand totals	76,463	77,891	79,614	81,390	83,223
	Difference	10,425	10,653	11,039	11,422	11,900
Second year	Supply totals [a]	86,887	88,545	90,653	92,812	95,122
	Demand totals	76,463	77,891	79,614	81,390	83,223
	Difference	10,425	10,653	11,039	11,422	11,900
Third year	Supply totals [a]	83,887	85,545	87,653	89,812	92,122
	Demand totals	76,463	77,891	79,614	81,390	83,223
	Difference	7,425	7,653	8,039	8,422	8,900
Fourth year	Supply totals [a]	81,676	83,330	85,436	87,591	89,904
	Demand totals	76,463	77,891	79,614	81,390	83,223
	Difference	5,213	5,439	5,822	6,201	6,682
Fifth year	Supply totals [a]	79,591	81,244	83,349	85,503	87,815
	Demand totals	76,463	77,891	79,614	81,390	83,223
	Difference	3,128	3,353	3,735	4,113	4,592

a Banked groundwater is reserved for dry conditions; 4,000 AF assumed available in dry years

2.6 Coordination with Other Agencies

As described in Section 5, in the event that a shortage is declared, Rancho Water will coordinate with EMWD, Western Water, the City of Murrieta, the City of Temecula, and the County of Riverside for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code. This will be necessary to ensure efficient regional water management during periods of water supply shortage. An up-to-date list of contacts at each agency, with all pertinent information, is maintained by the District's Public Affairs Manager, who has developed the appropriate protocols in the event of a local emergency, as defined in Section 8558(c) of the Government Code.

Section 3: Response to Catastrophic Failures

In addition to drought, other events that could trigger a water shortage include an earthquake, water system failures, fire, contamination, regional power outage, and state restrictions. CWC, Section 10632 (a)(4) requires an urban water supplier to prepare for a catastrophic interruption of water supplies. In the event of catastrophic failures of the water system, the District could activate Stage 5c of its WSCP. Applicable water budget reductions and mandatory restrictions and prohibitions are detailed in Sections 4.1.3 and 4.1.4, respectively.

3.1 Emergency Response Plan

Rancho Water's Emergency Operations Plan (EOP) addresses the planned mitigation strategies and response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies in or affecting the Temecula Valley and the surrounding area. This EOP describes the operations of the District's Emergency Operations Center (EOC), which is the central management entity responsible for directing and coordinating District emergency response activities.

The EOP establishes the framework for implementation of the California Standardized Emergency Management System for the District, which is located within the Riverside County Operational Area and Mutual Aid Region VI, as defined by the California Emergency Management Agency. By extension, the EOP will also implement the National Incident Management System. The EOP is intended to facilitate District and multi-agency coordination between cities, county, special districts, and state agencies in emergency operations. Although the repair and return of water distribution systems to normal operations is an important objective, the overriding goal of District staff in any emergency situation will be to take all actions required to protect the safety and welfare of human life.

3.2 Seismic Risk Assessment and Mitigation

CWC, Section 10632.5(a) requires that the WSCP include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities. As part of the Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP), Rancho Water assessed the seismic risk to all facilities in the jurisdiction (including District water facilities and supporting infrastructure), reviewed and assessed past disaster events, estimated the probability of future occurrences, and set goals to mitigate risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards, including earthquakes. The LHMP is available at: https://rivcoready.org/sites/g/files/aldnop181/files/users/user41/MJLHMP%205.1.25a.pdf. The Rancho Water Annex is provided as an Appendix to this WSCP.

The WSCP meets the requirements of the federal Disaster Mitigation Act of 2000 (Public Law 106-390) as well as the requirements of Water Code Section 10644. Based on the identified hazards, Rancho Water incorporates mitigation measures into the District's capital improvement program. A notable and significant seismic mitigation project undertaken by the District is Vail Dam Seismic and Hydrologic Remediation Project, which is underway.

Section 4: Stages of Action to Respond to Water Shortage

Rancho Water has developed a multi-stage contingency plan to reduce demand up to 50 percent and greater during a projected water shortage. Table 4-1 summarizes the percent reductions in supply that trigger the respective stages and the corresponding demand reduction that will required based on an Annual Assessment (see Section 2).

Table 4-1
Water Shortage Stages and Triggers/Demand Reduction Goals

	Trigger	Demand Reduction Goal Based on Projected Demand
1 Water Supply Watch	District is experiencing short term and long term effects of recent and/or ongoing drought conditions.	Reduce water waste. Voluntary demand reduction.
2 Water Supply Alert	District is experiencing short term and long term effects of recent and/or ongoing drought conditions.	Further reduce water waste. Voluntary demand reduction.
3 Water Supply Warning	3a - District is experiencing short term and long term effects of recent and/or ongoing drought conditions.	Further reduce water waste. Voluntary demand reduction.
	3b - annual supply is projected to be up to 10% less than the annual demand.	Reduce consumption by 10%.
	3c - annual supply is projected to be greater than 10%, and up to 20%, less than annual demand.	Reduce consumption by 20%.
4 Extreme Water Supply Warning	4a, 4b - annual supply is projected to be greater than 20%, and up to 30%, less than annual demand.	Reduce consumption by 30%.
	4c - annual supply is projected to be greater than 30%, and up to 40% less than annual demand.	Reduce consumption by 40%
5 Water Supply Emergency	5a, 5b - annual supply is projected to be greater than 40%, and up to 50%, less than annual demand.	Reduce consumption by 50%.
	5c - annual supply is projected to be more than 50% less than annual demand.	Reduce consumption by more than 50%

4.1 Shortage Response Actions

The District's contingency planning includes actions that can be taken should water shortages occur up to, and above, a 50 percent shortfall in supplies. As required by Section 10632(a)(3), the stages represent an ever-increasing gap between normally available water supplies and normally expected customer water use. This section outlines the responses that the District may implement in response to anticipated water supply shortages: supply augmentation, operational changes, demand reduction, and additional mandatory prohibitions. The measures to be taken are described below.

4.1.1 Supply Augmentation

At the current time, the District relies exclusively on imported water and local supplies to meet its potable water supply demands. All of these supplies can be compromised due to circumstances including, but not limited to, drought, natural disaster, acts of State legislation, and declarations made by MWD (precisely the circumstances that precipitate a water shortage). As a result, the District relies almost exclusively on curtailing demand to meet the gap between supply and demand.

Rancho Water is actively pursuing a banking project that will go into construction in 2027 and provide a drought supply as early as 2031. This banking project will be captured in the 2030 update to the WSCP.

4.1.2 Operational Changes

Rancho Water has made significant investments in the development of a software tool that is designed to analyze existing advanced metering infrastructure (AMI) data. This software is encoded with features that can be adopted to assess demand reduction during a drought. During normal, non-drought periods, the software is used to identify malfunctioning water meters to target for replacement and to measure water savings associated with water conservation efforts. During periods of drought, this latter feature can be used to determine if shortage response actions are bringing about the desired reduction goals.

The software analyzes historical water usage and weather data for each customer site that participates in a particular conservation project, and uses this data to create a baseline consumption model for each customer. This baseline model, along with actual weather data for the time-period, is used to predict how much water the customers would have used if they had not participated in the conservation program. The prediction is compared to the actual consumption that occurs following project participation and determines a gross water reduction. This tool has already shown to be effective in identifying inadvertent violations of the District's mandatory restrictions on water use.

4.1.3 Customer Demand Reduction

With little opportunity for supply augmentation, the District relies on constraining demand in order to meet water shortage gaps. Demand reduction measures are presented in Table 8-3R of Appendix B and are summarized in this section.

4.1.3.1 Customer Programs

Rancho Water promotes efficient water use at all times, offering a variety of programs that support agricultural, commercial, industrial, institutional, and residential customers. These programs place a strong emphasis on landscape performance and outdoor irrigation, since these areas provide the greatest opportunity for meaningful reductions in water use.

The CropSWAP program provides financial incentives to agricultural customers who convert from high-water-use crops to lower-water-use varieties and adopt improved irrigation practices. The program also supports regenerative agriculture by encouraging practices such as mulching, cover crops, soil moisture monitoring, improved fertigation, and refined irrigation scheduling. These approaches enhance soil health, improve irrigation uniformity, and reduce overall water demand on agricultural properties.

For commercial, industrial, and institutional properties, Rancho Water offers free landscape evaluations performed by trained landscape professionals. These evaluations identify irrigation efficiency opportunities, equipment upgrades, and recommended rebates. When a property is eligible for recycled water service, District staff assist customers in applying for Metropolitan Water District's On-site Retrofit Program, which provides financial incentives for converting potable irrigation or industrial systems to recycled water. Evaluations also help identify nonfunctional turf areas, and staff provide information about grants that may support turf replacement projects at schools, HOAs, and public facilities.

Residential customers have access to a range of tools that support efficient outdoor water use. These services include leak alerts supported by advanced metering infrastructure, free landscape evaluations, and landscape workshops offered throughout the year. The Temecula–Murrieta In Bloom webpage provides residents with climate-appropriate plant guides, contractor listings, and landscape design resources. Rancho Water also offers landscape design assistance through In Bloom Garden Designs and provides direct installation services through the In Bloom Direct Resources for Irrigation Performance (DRIP) Program, which includes on-site evaluations, installation of high-efficiency irrigation equipment, and reduced-cost irrigation repairs for eligible homes. Additional support is available through weather-based irrigation controller distribution events and ongoing rebates for a variety of indoor and outdoor efficiency upgrades.

Together, these programs help customers adopt efficient irrigation practices, reduce outdoor water use, and support Rancho Water's long-term water reliability objectives.

4.1.3.2 Water Budgets

Rancho Water utilizes a four-tier budget-based rate structure. The two, lowest priced tiers are designed to efficiently meet each customer's essential indoor and outdoor water needs. The least costly and most reliable source of water, local groundwater, is allocated first to Tier 1 usage. Imported water purchased from MWD, is used to meet remaining water demands in the higher tiers.

During each billing period residential and multifamily customers are allocated Tier 1 and Tier 2 water based on the household size, irrigated landscape area, and real-time weather conditions. Landscape customers are allocated a certain amount of water for outdoor irrigation needs. Tiers

3 and 4 apply to water use that exceeds a customer's allocated water budget. Each tier reflects the actual cost of service associated with providing water for a given parcel. The tier structure is summarized below:

Tiers	Residential Customers	Landscape Customers	Agricultural Customers
Tier 1	Indoor Tier	Ultra Efficient Outdoor Tier	Efficient Usage
Tier 2	Outdoor Efficient Tier	Outdoor Efficient Tier	In Excess of Efficient Usage Equal to 50% Efficient Usage Tier
Tier 3	Outdoor Inefficient Tier	Outdoor Inefficient Tier	Inefficient, Any usage above Tier 2
Tier 4	Wasteful	Wasteful	N/A

4.1.3.3 Customer Information

The District has developed "MyWaterTracker", an easy-to-use digital platform that enables customers to see and track their water use in real-time. The platform features a comparison of each customer's current water use to their individual household water budget and a leak tracking function which monitors water use and contacts customers if anomalous water use occurs or if a leak is suspected.

4.1.3.4 Customer Allocations

As shown in Table 4-2 below, in the event of a water shortage Rancho Water will adjust customer water budgets. The adjustments target inefficient outdoor water use during the smaller shortage stages and focus on additional outdoor reductions if greater shortages are anticipated. Only when a shortage of 50% or more is anticipated are customers asked to reduce indoor water use. The adjustment of the water budgets give customers flexibility to respond to the shortage in the way most appropriate for their situation.

Table 4-3 identifies the drought rate adjustments that correspond to each Water Shortage Contingency Plan (WSCP) stage, consistent with the District's rate structure. Rather than defining a standalone drought rate structure, the table aligns each shortage stage with the applicable drought rate that would be implemented under the District's adopted rates. These stage-specific adjustments (e.g., Adopted Water Commodity Rates – 10 Percent Reduction) represent the upper limit of the rate bands associated with each shortage stage and reflect the anticipated increase in the cost of providing water service during supply-constrained conditions, including higher-cost supplies and operational responses. The mandatory and optional restrictions identified in Table 4-2 continue to apply at each stage and work in conjunction with these rate adjustments to achieve demand reductions. Once drought reduction rates are adopted by the District, Table 4-3 will supersede Table 4-2. Consistent with Proposition 218, any such drought rates will be based on and limited to the proportional, incremental cost of service associated with each shortage stage.

Table 4-2
Water Shortage Stages, Budget Adjustments, and Restrictions

Rancho Water WSCP Stage	CWC Standard Shortage Stage	Percent Shortage Reduction	Customer Class		
			Residential, Single-Family and Multi-Family	*Agricultural, Agricultural/Residential, CII*	*Dedicated Landscape*
Water Budget Reductions					
1 – Water Supply Watch			None	None	None
2 – Water Supply Alert			None	None	None
3 - Water Supply Warning					
3a			None	None	None
3b	1	≤10 percent	Tier 3 – 50 percent	Tier 2 – 50 percent	Tier 3 – 50 percent
3c	2	≤20 percent	Tier 3 - 100 percent	Tier 2 – 100 percent	Tier 3 – 100 percent
4 - Extreme Water Supply Warning					
4a	3	≤30 percent	Tier 2 - 10 to 49 percent	Tier 1 – 10 percent	Tier 2 - 10 to 49 percent
4b	4	≤40 percent	Tier 2 – 50 to 99 percent	Tier 1 – 20 percent	Tier 2 – 50 to 99 percent
4c	4	≤40 percent	Tier 2 – 100 percent	Tier 1 – 45 percent	Tier 2 – 100 percent
5 - Water Supply Emergency					
5a	5	≤50 percent	Tier 1 – 10 percent	Tier 1 – 55 percent	Tier 1 – 100 percent
5b	5	≤50 percent	Tier 1 – 30 percent	Tier 1 – 60 percent	Tier 1 – 100 percent
5c	6	>50 percent	Tier 1 – 50 percent	Tier 1 – 70 percent	Tier 1 – 100 percent
Restrictions					
1 – Water Supply Watch			Water Waste Prohibited	Water Waste Prohibited	Water Waste Prohibited
2 – Water Supply Alert			Water Waste Prohibited	Water Waste Prohibited	Water Waste Prohibited
3 - Water Supply Warning					
3a			Water Waste Prohibited	Water Waste Prohibited	Water Waste Prohibited
3b	1	≤10 percent	• Irrigation prohibited between 9 am and 6 pm. • No irrigation until 48 hours after rainfall event.	• Recycled water users exempt from watering restrictions but must provide signage • No charity or fundraising car washes.	• Irrigation prohibited between 9 am and 6 pm. • No irrigation until 48 hours after rainfall event. • Do not allow irrigation water to leave the planted area.
3c	2	≤20 percent	• All restrictions of 3b • Customers in final construction must pre-pay for potable water meter to avoid mandatory restrictions.	• All restrictions of 3b • Customers in final construction must pre-pay for potable water meter to avoid mandatory restrictions.	• All restrictions of 3b • Customers in final construction must pre-pay for potable water meter to avoid mandatory restrictions.

Table 4-2 cont.

Rancho Water WSCP Stage	CWC Standard Shortage Stage	Drought Rate Structure			
Restrictions					
4 - Extreme Water Supply Warning					
4a 4b 4c	3 4 4	≤30 percent ≤40 percent ≤40 percent	• All restrictions of Stage 3 and • Potable water offset needed before installation of new potable water meter. • Washing of personal vehicles at home prohibited.	• All restrictions of Stage 3 • No new hydrant construction or temporary construction meter permits issued.	
5 - Water Supply Emergency					
5a 5b	5 5	≤50 percent ≤50 percent	• All restrictions of Stage 4 and • No irrigation of lawns, landscapes, and/or ornamental gardens. • No refilling recreational swimming pools or spas • No replacement water for ponds, lakes or water features	• All restrictions of Stage 4 and • No irrigation of lawns, landscapes, and/or ornamental gardens. • No refilling recreational swimming pools or spas • No replacement water for ponds, lakes or water features. • No potable water to be used for water features • No water for commercial car washes except at facilities using recycled or recirculating water • Hydrant construction and temporary construction meters rescinded. • No planting of new landscaping	• All restrictions of Stage 4 and • All hydrant construction and temporary construction meter permits rescinded • No planting of crop acreage in addition to existing acreage
5c	6	>50 percent	• All restrictions of Stage 5a and 5b and • No potable water to be used for water features	• All restrictions of Stage 5a and 5b	• All restrictions of Stage 5a and 5b

Table 4-3
Water Shortage Stages and Applicable Rates

Rancho Water WSCP Stage	CWC Standard Shortage Stage	Applicable Rates
Water Budget Reductions		
1 – Water Supply Watch		Adopted Water Commodity Rates
2 – Water Supply Alert		Adopted Water Commodity Rates
3 - Water Supply Warning		
3a		Adopted Water Commodity Rates
3b	1	Adopted Water Commodity Drought Rates – 10 Percent Reduction
3c	2	Adopted Water Commodity Drought Rates – 20 Percent Reduction
4 - Extreme Water Supply Warning		
4a	3	Adopted Water Commodity Drought Rates – 30 Percent Reduction
4b	4	Adopted Water Commodity Drought Rates – 40 Percent Reduction
4c	4	Adopted Water Commodity Drought Rates – 50 Percent Reduction
5 - Water Supply Emergency		
5a	5	Adopted Water Commodity Drought Rates – 50 Percent Reduction
5b	5	Adopted Water Commodity Drought Rates – 50 Percent Reduction
5c	6	Adopted Water Commodity Drought Rates –>50 Percent Reduction

4.1.3.5 Restrictions

In addition to encouraging customer water efficiency and customer allocations, Rancho Water will apply restrictions at different shortage stages. These are summarized in Table 4-2 and described below.

Moratorium or Net Zero Demand Increase on New Construction

Beginning in Stage 3b, and all higher stages, customers who have completed final construction drawings that have been approved by the District, will be provided with the opportunity to prepay for the associated potable water meter(s). These prepaid water meters would not be subject to the mandatory use restrictions discussed in this section, specifically a new moratorium or a no net zero demand increase requirement on new meters.

The District's Board will determine, as part of Stages 4a, 4b, and 4c, if a potable water offset is required for the installation of a new potable water meter, except for circumstances where there are specific health and safety concerns. The District's Board will determine, as part of Stages 5a, 5b, and 5c, if the installation of new potable water meters is allowed, except for circumstances where there are specific health and safety concerns.

Landscape Irrigation Restrictions

The District prohibits irrigation between 9:00 am and 6:00 pm and mandates that irrigation be conducted in a manner that does not allow water to run off from the irrigated property. Landscape irrigation with potable water is also prohibited for up to 48 hours after a measurable rainfall event. A complete list of irrigation restrictions is included in section 4.1.4.

Rancho Water identifies pools and spas separately from other water features, as the availability of potable water for special and/or decorative water features are restricted separately. Water features are permitted during early drought stages, but must use a recirculating pump. At the implementation of Stage 5a and above, the use of potable water as refill or makeup water for all water features, spas, or pools is prohibited. The District recommends the installation of pool and spa covers to minimize evaporative loss. During Stages 5a and 5b, no potable water is to be used for water features at commercial or institutional occasions, even if they have recirculating systems. During Stage 5c, this prohibition is expanded and no potable water may be used for water features for all customer classes, even if they have recirculating systems. The availability of recycled water for special water features can still be considered in all shortage stages, when consistent with existing recycled water permits issued by the California State Water Resource Control Board or the applicable Regional Water Quality Control Boards.

4.1.3.6 Recycled Water

Recycled water customers that use recycled water for outdoor irrigation are subject to the terms and conditions of the recycled water user agreement and the District's on-site recycled water irrigation systems manual. Under all stages described in this WSCP, water waste violates California law and the District's Water Conservation Policy.

4.1.4 Additional Mandatory Restrictions and Prohibitions

The District has specific prohibitions of end uses to support the varying rationing levels in Table 4-2. During a drought, the District gives priority to domestic water use, fire protection, and sanitation. Therefore, the restrictions and prohibitions specifically identify and target wasteful or low priority uses that are restricted during a water shortage emergency. Stage-specific mandatory prohibitions and restrictions are detailed below.

In all shortage stages water waste is prohibited. In addition, the use of potable water to irrigate nonfunctional turf at commercial, industrial, and institutional properties is prohibited at all times, consistent with state law.

4.1.4.1 Stage 1 – Water Supply Watch

Under Stage 1 conditions, customers are requested to continue to use water efficiently, maximize recycled water use, practice sensible voluntary water conservation, and take advantage of the District's indoor and outdoor water conservation tools and incentive programs to eliminate water waste. At the District's discretion, additional mandatory restrictions and Volumetric Penalties may be imposed, as deemed necessary.

All Customers

Customers shall abide by the following water conservation requirements at all times in all Water Shortage Stages:

1. Refrain from hosing down driveways and other hard surfaces, except for health and sanitary reasons.
2. Repair faucets, toilets, pipes, and other potential sources of water leaks.
3. Refrain from watering lawns on public medians.
4. Refrain from watering any landscape within 48 hours after measurable precipitation.
5. Adjust and operate all landscape irrigation systems in a manner that will maximize irrigation efficiency and avoid over watering or watering of hardscape and resulting in runoff.
6. Prevent excessively irrigating any lawn or landscape area that would cause the sheeting of water to flow; eliminate water runoff from lawns or landscape areas into any gutters, streets, or alleys.
7. Irrigate landscape only between 6 pm and 9 am. This provision does not apply when:
    - Customers irrigating with recycled water will be exempt from watering restrictions imposed, provided signage on the site conforms to recycled water use requirements and is clearly visible.
    - Manually watering during the establishment period of a new landscape
    - Supervised spot watering is done to address landscape issues
    - Temperatures are predicted to fall below freezing
    - Testing/repairing an irrigation system
    - Using drip and point-to-point irrigation systems
    - A longer watering window is needed due to system constraints
8. Do not use decorative fountains unless they are equipped with a recirculating system.
9. When installing plumbing fixtures, use low-flow devices, except for those that require high-flow fixtures for health and/or sanitary reasons. Where possible, install pool and spa covers to minimize water loss due to evaporation during non-operating days.
10. Do not allow water to run while washing vehicles, including autos, trucks, trailers, motor homes, boats, or others. Use a hose with an automatic shutoff valve to avoid runoff into gutters, streets, or alleys. Use a hose equipped with an automatic shutoff valve or other device that causes it to cease dispensing water immediately when not in use.
11. When installing new landscaping, refer to the Water Use Classification of Landscape Species. Plant low water California Friendly® Landscapes. Nonfunctional turf areas are not recommended. Turf lined channels are only permitted when justified by environmental regulations.
12. Refrain from watering during rain or high winds by turning off irrigation timers.
13. The use of potable water to irrigate nonfunctional turf at commercial, industrial, and institutional properties is prohibited at all times and under all water shortage stages, consistent with state law.

4.1.4.2 Stage 2 – Water Supply Alert

Under Stage 2 conditions, *all voluntary and mandatory use reduction measures included in Stage 1 remain in effect for all customer classes.* At the District's discretion, additional mandatory restrictions and Volumetric Penalties may be imposed, as deemed necessary.

Additional voluntary water use reduction measures are recommended at Stage 2 as discussed below.

All Customers

Voluntary water use reduction measures are requested of all customer classes, as follows:

- Eliminate sprinkler overspray from driveways and sidewalks.
- Divide irrigation runtimes into multiple cycles to eliminate runoff water that leaves the landscaped area.
- Install a self-adjusting "Smart" irrigation controller, and ensure the controller has a manual mode that will allow compliance with higher stages of the WSCP.
- Tune-up irrigation systems by checking for and repairing leaks and damaged sprinklers.
- Use of a broom instead of a hose to clean driveways, sidewalks, and other hardscape surfaces, except for California Department of Health Services prescribed health or sanitary reasons.
- Install pool and spa covers to minimize evaporative water loss.
- Use the District's MyWaterTracker online tool to track hourly/daily water consumption.
- Wash only full loads of laundry and/or dishes.
- Shorten showers and turn off faucets while brushing teeth or shaving.

Agricultural Customers

The District recognizes the importance of the agricultural industry to the local economy and strives to help sustain the economic viability of the agricultural industry within its service area through implementation of a variety of water use efficiency measures. The District recognizes agricultural properties as commercial enterprises; therefore, this WSCP regards agricultural water users similarly to commercial water users. For farms/agricultural users with homes on the property, the WSCP regards these agricultural accounts as commercial water users with some residential use. The following voluntary water use reduction measures are requested of all agricultural customers:

1. When possible, irrigate crops during the cooler nighttime hours to minimize evaporative water loss.
2. Tune-up agricultural irrigation systems by checking for and repairing leaks and damaged sprinklers/drippers.
3. Eliminate sprinkler overspray from driveways, access roads, and other non-irrigated surfaces.

4. Install a soil moisture-monitoring device such as a tensiometer or a capacitance probe. Use these devices to decide how often to irrigate.
5. Use weather data, including evapotranspiration (ET) information, and/or an irrigation scheduling calculator to determine irrigation runtimes. ET information is available through the District's MyWaterTracker portal, and irrigation scheduling calculators are available through various online resources.
6. Use the District's MyWaterTracker online tool to track hourly/daily water consumption. Agricultural customers are encouraged to enroll in District leak notifications.

To assist customers in complying with the voluntary water use reduction measures, enhanced outreach and customer support and communication programs will be implemented.

4.1.4.3 Stage 3 – Water Supply Warning

Under Stage 3 conditions, *all voluntary and mandatory use reduction measures included in Stages 1 and 2 remain in effect* for all customer classes. Decreases in Tier 3 inefficient use water budgets are imposed for residential, multi-family, and dedicated landscape customers. Decreases in Tier 2 inefficient use water budgets are imposed for commercial and agricultural customers. At the District's discretion, additional mandatory restrictions and Volumetric Penalties may be imposed, as deemed necessary. Additional water use reduction measures are mandated for all customer classes.

> **Stage 3b:** No variances or adjustments will be approved for filling swimming pools, establishing or expanding landscape area (not including agricultural customers), leaks not repaired within 48 hours, and existing outdoor water budgets. Residential and dedicated landscape Tier 3 water budgets are decreased by 50 percent; agricultural, agricultural/residential, and CII Tier 2 budgets are decreased by 50 percent.
>
> **Stage 3c:** Residential and dedicated landscape Tier 3 water budgets are eliminated; agricultural, agricultural/residential, and CII Tier 2 budgets are eliminated.

<u>CII Customers</u>

Stage 3 mandatory water use reduction measures for all CII customers are as follows:

1. CII and landscape customers are advised to adjust automatic irrigation timers according to changing weather patterns and landscape requirements.
2. Exceptions may be granted, as necessary, to provide for the health and welfare of the community, pursuant to state and federal regulations (e.g., dust control).
3. Commercial car wash operators will work to ensure most of the water used is captured and reaches the municipal wastewater system so that it can be recycled for reuse in community landscapes. Car wash operators shall work with the District to distribute discount coupons or other incentives to discourage the washing of vehicles in private driveways.
4. No CII entity shall allow the use of its premises for charity or fundraising car washes.
5. Drinking water shall not be served other than upon request in eating or drinking establishments, including, but not limited to, restaurants, hotels, cafes, cafeterias, bars, or other public places where food and drink are served and/or purchased.

6. Operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily. The hotel or motel shall prominently display notice of this option in each bathroom using clear and easily understood language.

Agricultural Customers

Stage 3 mandatory water use reduction measures for all agricultural customers are as follows:

1. If a new crop, in addition to that already planted, is installed, it must be done in accordance with industry-accepted irrigation best management practices (i.e., the system must contain pressure compensation and regulation devices) to guarantee excellent distribution uniformity.
2. Do not allow irrigation water to leave the planted crop area.

4.1.4.4 Stage 4 – Extreme Water Supply Warning

Under Stage 4 conditions, *all voluntary and mandatory use reduction measures included in Stages 1, 2, and 3 remain in effect* for all customer classes. Decreases in Tier 2 efficient use water budgets for residential, dedicated landscape, and multi-family customers are imposed. Decreases in Tier 1 efficient use water budgets for Agriculture and CII customers are imposed. Variances will be granted for health and safety only. The District's Board will determine if no new potable water meters are allowed, except for health and safety, unless water demand is offset to a net zero increase. Achieving net zero water increase could occur when potable water use of proposed development is no greater than current demand within the District's service area prior to installation of the new meters. At the District's discretion, additional mandatory restrictions and Volumetric Penalties may be imposed, as deemed necessary. Additional water use reduction measures are mandated for all customer classes.

Stage 4a: Residential and dedicated landscape, Tier 2 water budgets are decreased by 10 percent to 49 percent; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 10 percent.

Stage 4b: Residential, Tier 2 water budgets are decreased by 50 percent to 99 percent; dedicated landscape, Tier 2 water budgets are eliminated; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 20 percent.

Stage 4c: Residential, Tier 2 water budgets are eliminated; dedicated landscape, Tier 1 water budgets are eliminated; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 45 percent.

All Customers

Stage 4 additional mandatory water use reductions for all customer classes as follows:

1. Washing of personal vehicles at home (including autos, trucks, trailers, motor homes, boats, or others) is prohibited.

It is recommended that all customers install self-adjusting "Smart" irrigation controllers and ensure the controller has a manual mode to allow compliance with higher shortage stages. It is recommended that customers install pool and spa covers to minimize evaporative loss.

CII and Agricultural Customers

Stage 4 additional mandatory water use reduction measures for all CII and agricultural customers are as follows:

1. Recycled water customers must comply with requirements listed in Section 4.1.3.6.
2. No new hydrant-construction or temporary construction meter permits will be issued by the District.

4.1.4.5 Stage 5 – Water Supply Emergency

Under Stage 5 conditions, *all voluntary and mandatory use reduction measures included in Stages 1, 2, 3, and 4, remain in effect* for all customer classes. Decreases in Tier 1 efficient use water budgets for residential, multi-family, and dedicated landscape customers are imposed. Further decreases in Tier 1 efficient use water budgets for agricultural and CII customers are imposed. Variances for health and safety only. The District recommends the installation of pool and spa covers to minimize evaporative water loss. The District's Board will determine if no new potable water meters are allowed. At the District's discretion, additional mandatory restrictions and Volumetric Penalties may be imposed, as deemed necessary. Additional water use reduction measures are mandated for all customer classes.

Stage 5a: Residential, Tier 1 water budgets are decreased by 10 percent; dedicated landscape Tier 1 water budgets are eliminated; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 55 percent.

Stage 5b: Residential, Tier 1 water budgets are decreased by 30 percent; dedicated landscape Tier 1 budgets are eliminated; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 60 percent.

Stage 5c: Residential Tier 1 budgets are decreased by 50%. As in Stages 5a and 5b, dedicated landscape Tier 1 water budgets are eliminated; agricultural, agricultural/residential, and CII Tier 1 budgets are decreased by 70 percent.

All Customers

Stage 5 additional mandatory water use reductions for all customer are as follows:

1. No irrigation of lawns, landscapes, and/or ornamental gardens. Vegetable gardens under 5,000 square feet in area grown for personal consumption are exempt.
2. Water for refilling recreational swimming pools and spas is prohibited.
3. No replacement water may be provided for ponds, lakes, or other special water features. Aeration equipment should be managed in such a way as to eliminate evaporative loss of water.
4. Turn off all decorative fountains, even if it has a recycling (recirculating) system, and consider using any remaining water to irrigate landscape. Make sure to empty completely so standing water does not attract insects.
5. Limit use of misting devices.
6. Shorten showers and turn off faucets while brushing teeth or shaving.

CII Customers

Stage 5 additional mandatory water use reduction measures for all CII customers are as follows:

1. No water for commercial car washes.
2. All hydrant construction and temporary construction meter permits will be rescinded by the District.
3. No planting of new landscaping (seed, sod, or other plant materials).

Agricultural Customers

Stage 5 additional mandatory water use reduction measures for all Agricultural customers are as follows:

1. All hydrant construction and temporary construction meter permits will be rescinded by the District.
2. No planting of crop acreage in addition to existing acreage.

4.1.5 Assessment of Shortage Response Action Effectiveness

The DWR guidance for WSCP asks that suppliers predict volumetric reduction for each of the response actions that it institutes during periods of shortage. Arriving at a reliable and accurate estimate of effectiveness of shortage response is difficult. Among the variables to consider variability in response to shortage actions according to customer class and income levels, and the effect of individual actions when they are enforced cumulatively and not sequentially.

The District's estimation of effectiveness of its drought response actions is influenced by the response during the 2015-2017 and 2022-2023 drought and by the experience of other California suppliers, as reported in the *Alliance for Water Efficiency* (AWE): *Use and Effectiveness of Municipal Irrigation During Drought*, January 2020 and the *American Water Works Association (AWWA) Water Conservation Programs Manual, M52*. While the District recognizes that variations in climate, economies of scale experienced by larger suppliers, and economic conditions may skew the assumptions, but considers this approach as the most reasonable means of estimating the effectiveness of its WSCP.

Table 4-3 presents the overall percent reductions in water use that the District anticipates will result from its shortage response actions. Where necessary, adjustments are made to the referenced reduction reported in the studies (e.g., AWE reports that customers who take advantage of turf reduction programs use 10 percent less water than those who do not). The table assumes that only 30 percent of customers will take advantage of this offer in the early stages of a drought, with this uptake level increasing to 80 percent in the most restrictive stage of a water shortage. Therefore, anticipated reduction for this shortage response action is assumed to be only 3 percent in Stage 3b but increase to 8 percent in Stage 5c. Similar uptake factors are applied for other demand response actions in the Table 4-3.

The majority of the shortage gaps will be filled by the mandated water budget reductions outlined in Table 4-2, along with Volumetric Penalties for excessive water usage. As with the other shortage response actions presented in Table 4-3, the effectiveness of this rationing in reducing

demand is anticipated to decline as water budget reductions become more onerous. This is consistent with observations of 'drought fatigue' by other agencies such as San Diego County Water Authority. For the early stages of a water shortage (3b – 4a) 100 percent compliance is assumed, and the District expects a 2 percent reduction in water use at Stage 3b, 5 percent at Stage 3c, and a 21 percent reduction in water use at Stage 4a. Compliance in later drought stages is assumed to decline to 50 percent and 60 percent and will result in the following reductions in water use: 31 percent in Stage 4b and 4c; 33 percent in Stage 5a and 5b; and 37 percent in Stage 5c.

Table 4-4
Anticipated Effectiveness of Demand Reduction Actions

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
1	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
1	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
1	Offer water use surveys	3	AWWA 2011 assumes savings of 10 percent for residential single family users. Adjusted for 50 percent residential customers and 20 percent uptake
1	Provide rebates for turf replacement	2	AWE assumes 10 percent. District assumes 20 percent uptake at this stage of water shortage
1	Provide rebates for landscape irrigation efficiency	N/A[1]	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
1	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
1	Provide rebates on plumbing fixtures and devices	N/A[1]	
2	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
2	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
2	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
2	Offer water use surveys	3	AWWA 2011 assumes savings of 10 percent for residential single family users. Adjusted for 50 percent residential customers and 20 percent uptake
2	Provide rebates for turf replacement	2	AWE assumes 10 percent. District assumes 20 percent uptake at this stage of water shortage
2	Provide rebates for landscape irrigation efficiency	1	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
2	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
2	Provide rebates on plumbing fixtures and devices landscape	N/A[1]	
2	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
3a	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
3a	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an digital platform.
3a	Offer water use surveys	3	AWWA 2011 assumes savings of 10 percent for residential single family users. Adjusted for 50 percent residential customers and 20 percent uptake
3a	Provide rebates for turf replacement	2	AWE assumes 10 percent. District assumes 2 percent uptake at this stage of water shortage
3a	Provide rebates for landscape irrigation efficiency	1	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
3a	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
3a	Provide rebates on plumbing fixtures and devices	N/A[1]	
3a	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
3b	Implement or Modify Drought Rate Structure and Volumetric Penalties	2	Residential and landscape Tier 3 budgets decreased up to 50 percent. Agricultural, CII, and agricultural/ residential Tier 2 are decreased by up to 50 percent. Assumes 100 percent compliance.
3b	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
3b	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
3b	Offer water use surveys	2	AWWA 2011 assumes savings of 10 percent for residential single-family users. Adjusted for 50 percent residential customers and 20 percent uptake
3b	Provide rebates for turf replacement	3	AWE assumes 10 percent. District assumes 30 percent uptake at this stage of water shortage
3b	Provide rebates for landscape irrigation efficiency	1	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
3b	Water Features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
3b	Provide rebates on plumbing fixtures and devices	N/A[1]	
3b	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
3b	Other – require automatic shut of hoses	N/A[1]	
3b	CII - restaurants may only serve water upon request	N/A[1]	
3b	CII - lodging establishment must offer opt out of linen service	N/A[1]	
3c	Implement Modified Drought Rate Structure and Volumetric Penalties	5	Residential and landscape Tier 3 budgets decreased up to 100 percent. Agricultural, CII, and agricultural/ residential Tier 2 is decreased by up to 100 percent. Assumes 100 percent compliance.
3c	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
3c	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
3c	Offer water use surveys	2	AWWA 2011 assumes savings of 10 percent for residential single-family users. Adjusted for 50 percent residential customers and 20 percent uptake

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
3c	Provide rebates for turf replacement	3	AWE assumes 10 percent. District assumes 30 percent uptake at this stage of water shortage
3c	Provide rebates for landscape irrigation efficiency	3	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
3c	Water Features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
3c	Provide rebates on plumbing fixtures and devices	N/A[1]	
3c	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
3c	Other – require automatic shut of hoses	N/A[1]	
3c	CII - restaurants may only serve water upon request	N/A[1]	
3c	CII - lodging establishment must offer opt out of linen service	N/A[1]	
4a	Implement Modified Drought Rate Structure and Volumetric Penalties	21	Residential Tier 2 budgets are decreased by up to 49 percent; Landscape budgets are completely eliminated; and CII, agricultural, and agricultural/residential Tier 1 budgets are decreased by up to 10 percent. Assumes 100 percent compliance.
4a	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
4a	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
4a	Offer water use surveys	2	AWWA 2011 assumes savings of 10 percent for residential single-family users. Adjusted for 50 percent residential customers and 20 percent uptake
4a	Provide rebates for turf replacement	3	AWE assumes 10 percent. District assumes 30 percent uptake at this stage of water shortage
4a	Provide rebates for landscape irrigation efficiency	3	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
4a	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
4a	Provide rebates on plumbing fixtures and devices	N/A[1]	
4a	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
4a	Other – require automatic shut of hoses	N/A[1]	
4a	CII - restaurants may only serve water upon request	N/A[1]	
4a	CII - lodging establishment must offer opt out of linen service	N/A[1]	

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
4b, 4c	Implement Modified Drought Rate Structure and Volumetric Penalties	31	Residential Tier 2 budgets are decreased by up to 100 percent; Landscape budgets are eliminated; and CII, agricultural, and agricultural/residential Tier 1 budgets are decreased by up to 45 percent. Assumes only 60 percent compliance at this stage.
4b, 4c	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
4b, 4c	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
4b, 4c	Offer water use surveys	3	Single-family, multifamily, landscape, and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10 percent for residential single-family users Adjusted for 50 percent residential customers and 50 percent uptake
4b, 4c	Provide rebates for turf replacement	5	AWE assumes 10 percent. District assumes 50 percent uptake at this stage of water shortage
4b, 4c	Provide rebates for landscape irrigation efficiency	3	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
4b, 4c	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
4b, 4c	Provide rebates on plumbing fixtures and devices	N/A[1]	
4b, 4c	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
4b, 4c	Other – require automatic shut of hoses	N/A[1]	
4b, 4c	CII - restaurants may only serve water upon request	N/A[1]	
4b, 4c	CII - Lodging establishment must offer opt out of linen service	N/A[1]	
4b, 4c	Other - prohibit vehicle washing except at facilities using recycled or recirculating water	N/A[1]	
5a, 5b	Implement Modified Drought Rate Structure and Volumetric Penalties	33	Residential Tier 1 budgets are decreased up to 30 percent; agricultural and agricultural/residential Tier 1 budgets are decreased by up to 60 percent. Assumes 50 percent compliance.
5a, 5b	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
5a, 5b	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
5a, 5b	Offer water use surveys	3	Single-family, multifamily, landscape, and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10 percent for residential single family users Adjusted for 50 percent residential customers and 50 percent uptake
5a, 5b	Provide rebates for turf replacement	5	AWE assumes 10 percent. District assumes 50 percent uptake at this stage of water shortage
5a, 5b	Provide rebates for landscape irrigation efficiency	3	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 50 percent.
5a, 5b	Water Features - restrict water use for decorative water features, such as fountains	N/A [1]	Require recirculating system
5a, 5b	Provide rebates on plumbing fixtures and devices	N/A[1]	
5a, 5b	Landscape – Restrict or prohibit runoff from landscape irrigation	N/A[1]	
5a, 5b	Other – Require automatic shut of hoses	N/A[1]	
5a, 5b	CII - Restaurants may only serve water upon request	N/A[1]	
5a, 5b	CII - Lodging establishment must offer opt out of linen service	N/A[1]	
5a, 5b	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	N/A[1]	

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
5a, 5b, 5c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	N/A[1]	
5a, 5b	Other water feature or swimming pool restriction	N/A[1]	Water for refilling pool and spa prohibited
5c	Implement Modified Drought Rate Structure and Volumetric Penalties	37	Residential Tier 1 budgets are decreased by 50 percent; agricultural and agricultural/residential Tier 1 budgets are decreased by up to 70 percent. Assumes 50 percent compliance.
5c	Expand public information campaign	0.50	AWWA 2011 assumes 0.5 percent for residential users.
5c	Improve customer billing	N/A [1]	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.
5c	Offer water use surveys	4	Single-family, multifamily, landscape, and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10 percent for residential single family users. Adjusted for 50 percent residential customers and 80 percent uptake
5c	Provide rebates for turf replacement	8	AWE assumes 10 percent. District assumes 80 percent uptake at this stage of water shortage
5c	Provide rebates for landscape irrigation efficiency	4	Based on AWE Drought restrictions handbook assumes savings of 5 percent. Assumes uptake of 80 percent.
5c	Water features - restrict water use for decorative water features, such as fountains	N/A [1]	No water for water features is allowed, for all customer classes, even if they have recirculating systems.

Table 4-4 cont.

WSCP Shortage Stage	Demand Reductions	Anticipated Effectiveness (percent reduction)	Explanation or Reference
5c	Provide rebates on plumbing fixtures and devices	N/A[1]	
5c	Landscape – restrict or prohibit runoff from landscape irrigation	N/A[1]	
5c	Other – require automatic shut of hoses	N/A[1]	
5c	CII - restaurants may only serve water upon request	N/A[1]	
5c	CII - Lodging establishment must offer opt out of linen service	N/A[1]	
5c	Other water feature or swimming pool restriction	N/A[1]	Water for refilling pool and spa prohibited

1 Provides additive but statistically insignificant water savings

Section 5: Communications Protocols

Successful implementation of this Water Shortage Contingency Plan will require coordination with agencies that supply Rancho Water, neighboring retail water agencies, land use agencies, and customers.

The WSCP communication protocol will be led by the District's Public Information Officer, who will receive assistance from the Customer Service Department. The District's WSCP communication protocol is in place prior to a water supply shortage. The protocol will be coordinated with the District's partner agencies at all stages of a shortage. Close coordination is critical to minimize confusion and maximize compliance by District water customers. During shortages, the state often imposes water reduction targets that vary widely even for water districts within close proximity to each other. Often, DWR and MWD engage in communication activities that extend to the District's service area. District communications personnel will coordinate messaging with partner agencies (EMWD and Western Water) to ensure clear and consistent local messaging throughout all stages of a water shortage.

Upon completion of the Annual Assessment and the declaration of a shortage by the Board, the District will inform the public if a shortage exists or is anticipated, the level of the shortage, the conditions that trigger the shortage, shortage stage that has been activated, and the specific shortage response actions that will be in place. Stage-specific communication protocols to be employed by the District are outlined below. The District has an Emergency Communication Plan (ECP) that is set up to allow staff to systematically follow a checklist of items to respond promptly, accurately, and efficiently to emergencies. In the event of a catastrophic failure of the water supply system (such as in Stage 5c), the measures of the ECP will be activated as follows.

Table 5-1
Communications Procedures

Stage	Procedures	Dissemination Method
1 **Water Supply Watch**	Initiate public information campaign requesting voluntary reduction in water use and reminding public of ongoing water conservation requirements. Offer residential water surveys and landscape water audits and provide District website links for rebates.	District website, e-mail, bill inserts, social media
2 **Water Supply Alert**	Update the District's water conservation pages, reinforcing continuing voluntary reduction in water use.	All methods from Stage 1 and the following: Public information booths Provide information to homeowners associations

Table 5-1 cont.

Stage	Procedures	Dissemination Method
3 **Water Supply Warning**	Continue vigorous public information reminding residential customers of the water budget reductions, associated rate schedules, and future restrictions if supply shortage continues. Provide technical information (according to customer class) with recommendations on how this reduction may be achieved. Initiate citizen information hotline Prepare educational brochures. Initiate targeted media placements: • issue regular news releases to the media • design public information insert	All methods from Stage 1 and 2 and the following: Local newspapers, local television, telephone
4 **Extreme Water Supply Warning**	Develop brochures for each customer class advising users of their respective mandatory water budget reductions, associated rate schedules, and future restrictions if supply shortage continues. Provide regular updates to groups known to represent the following stakeholder groups: elected officials, civic and business leaders, and farmers. Create hotline for reporting" offenders.”	All methods from Stage 1-3 and the following: Informational booths at local government, attendance at District’s Farm Management Bureau meetings
5 **Water Supply Emergency**	Create public service announcements for local news stations. Provide regular updates to individual stakeholders. Write article/column for local newspapers. Schedule regular television/radio appearances for District staff to emphasize the catastrophic nature of the water shortage; Provide reassurance on other actions the District is taking to reduce shortage.	All methods from Stage 1-4 and the following: Local television, local radio.

Local media outlets that the District may use, include the following:

Media Source	Media Type
City of Temecula Channel 3	Television
The Press Enterprise	Printed and Online Publication
The San Diego Union Tribune	Printed and Online Publication
The Patch	Online Publication
Valley News	Online Publication
Rancho Water	District Website

The District will engage in the following coordination efforts, as outlined in Appendix D of the EOP:

- Coordinate with neighboring agencies, including Western Water and EMWD, to discuss: outlining response activities, roles and responsibilities, and mutual aid procedures (e.g., how to request and offer assistance):
    - Conducting joint tabletop or full-scale exercises.
    - Obtaining resources and assistance, such as equipment, personnel, technical support, or water.
    - Establishing interconnections between systems and agreements with necessary approvals to activate this alternate water source. Equipment, pumping rates, demand for the water sources, and any impacts on water rights laws need to be considered and addressed in the design and operations.
    - Establishing communication protocols and equipment to reduce misunderstandings during the incident.
- Coordinate with other key response partners, such as Riverside County Emergency Management Department, to identify potential points of distribution for the delivery of an emergency water supply (e.g., bottled water) to the public, as well as who is responsible for distributing the water.
- Understand how the local and utility emergency operations center will be activated and what the District may be called on to do, as well as how local emergency responders and the local Emergency Operations Center can support the District during a response.
- Coordinate with other neighboring water systems to develop a water use plan, especially if the District is in an agricultural area, to ensure there will be an adequate water supply by managing drawdown rates with agricultural (e.g., irrigation, livestock watering), industrial, and public water supply needs.
- Coordinate water usage with neighboring irrigation districts that are supplied by the same aquifer.
- Coordinate with community leaders and high water-using organizations within the community to discuss potential drought and conservation measures.

The District will also communicate with customers, as outlined in Appendix D of the EOP:

- Communicate with critical customers, high water users, and agricultural customers to discuss seasonal demand, irrigation practices, and conservation measures.

- Review public information protocols with the Division of Drinking Water. These protocols should include developing water advisory messages (e.g., boil water, warnings that service disruptions are likely) and distributing them to customers using appropriate mechanisms, such as reverse 9-1-1.
- Develop outreach materials for the public (e.g., radio, social media, and bill inserts) that clearly describe conservation measures and activities.
- Consider establishing programs to encourage customers to conserve water year-round, such as rebate programs, distribution of home retrofit kits, and water conservation classes.

Section 6: Compliance and Enforcement

In times of drought, a call for voluntary conservation may not bring about sufficient reduction in water use, particularly in times of extreme shortage when the water shortage level exceeds 20 percent. In such cases, the District will implement mandatory prohibitions and restrictions, together with the water budget reductions, for all customer classes, as shown in Table 4-2. The District's enforcement program is supplemented by a number of measures, which help it identify violators and assist customers in detecting and fixing leaks on their properties.

Sections of CWC Chapter 3, commencing with Section 350 of Division 1, provide the authority for the governing body of a water agency to declare a water shortage and to adopt and enforce water conservation restrictions. (CWC §§ 350-359, 375-378.0.).

6.1 Water Waste Patrols

Water waste patrols have been found to be an effective low-technology approach to easily observe landscape irrigation runoff when it occurs on residential front lawns, business, and public landscapes. The District has no formal dedicated water waste patrols, but Operations and Customer Service employees report violations observed as part of their daily routine work.

6.2 Citizen Reporting

All residents are encouraged to report water leakages and waste via the District's *Water Waste Report* website: www.ranchowater.com/431/Water-Waste-Report.

6.3 Technology-Enhanced Metering

The District utilizes Automatic Meter Read (AMR) technology for customer meters so that water meters can be remotely read and linked to a web portal. This provides access to timely and accurate information about customer water consumption. Using AMR information, the District is able to detect nonstop 24/7 water use and to notify customers that they may have a plumbing or irrigation leak. As part of Rancho Water's customer leak notification program, the District sends leak alerts to residential customers by e-mail, text message, phone call, and/or letter depending on the contact information on file in the billing system.

6.4 Fines

The District will notify customers who violate any of the restrictions or mandatory provisions in effect. Violations, which are related to the malfunction of water conveying hardware or devices, are subject to the following enforcement:

1. For the first violation, the District may use a door hanger to alert the customer of the violation and shall issue a written notice of fact of such violation to the customer. The customer shall then be allowed a period of 10 days following issuance of the written notice to correct the violation described therein, after which a second violation will be issued.

2. For a second violation, the District shall issue a written notice of fact of such violation to the customer. The customer shall then be allowed a period of 10 days following issuance of the written notice to correct the violation described therein before a third violation will be issued.

3. For a third violation, the District shall issue a written notice of fact of such violation to the customer when a second violation has not been corrected within a period of 10 days following issuance of the second violation notice. A fine of $50 shall be added to the customer's water bill upon issuance of the third violation. The customer shall be allowed a period of 5 days following issuance of the written notice to correct the third violation before a fourth violation will be issued.

4. For a fourth violation the District shall issue a written notice of fact of such violation to the customer when a third violation has not been corrected within a period of 5 days following issuance of the third violation notice. A fine in the amount of $100 shall be added to the customer's water bill upon issuance of the fourth violation. The customer shall be allowed 5 days following issuance of the written notice to correct the fourth violation before a fifth violation will be issued.

5. For a fifth violation, the District shall issue a written notice of fact of such violation to the customer when a fourth violation has not been corrected within a period of 5 days following issuance of the fourth violation notice. A fine in the amount of $200 shall be added to the customer's water bill upon issuance of the fifth notice. The customer shall be allowed 5 days following issuance of the written notice to correct the fifth violation before a sixth violation will be issued.

6. For a sixth violation, the District shall issue a written notice of fact of such violation to the customer when the fifth violation has not been corrected within a period of 5 days following issuance of the fifth violation notice. A fine of $500 per day shall be added to the customer’s water bill following the issuance of the sixth violation notices until the violation is corrected.

Violations that are not related to the malfunction of water conveying hardware or devices, but are related to actions taken by a water user, including, but not limited to, hosing down driveways, are subject to the same enforcement procedures outlined above with the exception that the expected timeframe for correction of the violation is immediate.

Customers shall pay all water bills and fines in accordance with the due dates stated on their bills. An Appeals Process is offered to customers that disagree with the fines assessed. If the appeal is upheld in favor of the customer, appropriate monies will be refunded. Details of the Appeals Process are provided below and contained within Appendix D of the District’s Water Conservation Policy.

6.5 Hearings and Appeals

Any customer may appeal the imposition of fines under this policy by filing a written request with the District Water Use Efficiency Department for an appeals hearing. The District must receive

the request within thirty days of the final notice. A request for a hearing shall set forth, in detail, all facts supporting the request.

The District's Water Use Efficiency Department shall, within fifteen days of receiving a request for an appeal hearing, provide written notice to the customer of the hearing date, time, and place. The hearing date shall not be more than thirty days from the mailing of such notice by certified mail, unless a later date is agreed to by the customer.

At the hearing, a Water Use Efficiency Department representative will represent the District. The customer will have the opportunity to present information supporting their position concerning the required irrigation evaluation or penalty charges. After the hearing, the Water Use Efficiency Department shall deliver a written report to the General Manager setting forth findings of fact, conclusions, and a recommendation on whether to uphold, modify, or reverse the original fines. Upon receipt of the written report, the General Manager shall issue a decision within fifteen calendar days of the hearing. The written decision of the General Manager shall be sent to the customer by certified mail. The General Manager's decision shall be final on the 16th day after it is mailed, unless a request for a hearing is filed with the Board no later than 5 p.m. on the 15th day following such mailing.

Any customer may appeal a decision made by the General Manager, prior to the date that the General Manager's order becomes final, by filing a written request for a hearing with the Board. The request for the Board hearing shall set forth in detail all the issues in dispute and all facts supporting the request. No later than thirty days after receipt of the request for a hearing, the Board shall either set the matter for a hearing, or deny the request for the hearing. Whether to grant or deny a request for a hearing on an appeal to the General Manager's decision shall be within the sole discretion of the Board.

If required, a hearing shall be held by the Board within thirty days of the date the request for a hearing was granted, unless a later date is agreed to by the customer and the Board. The Board shall make a determination whether to uphold, modify, or reverse the General Manager's decision. The order of the Board shall be final upon its adoption. The written decision and order of the Board shall be sent to the customer by certified mail within fifteen days after the close of the hearing.

If the matter is not heard within the required time, due to actions or inactions of the customer, or the Board's decision to deny the request for the hearing, the General Manager's decision shall be final.

6.6 Volumetric Penalties

Volumetric Penalties may be imposed if customers exceed their water budgets during times of water shortage (local or import), or when MWD implements its Water Supply Allocation Plan. Such excessive water use is a violation of the water shortage stages of this WSCP and is subject to a Volumetric Penalty, which will be assessed based on the quantity of excessive water used.

6.6.1 Residential and Dedicated Landscape

For Water Shortage Stages 3, 4, and 5 of the WSCP, residential and landscape customers may have their water budgets reduced to coincide with available local and imported supply. For example, if MWD implements a reduction of any level, Rancho Water will determine the appropriate water budget reduction to be imposed, if any, based on the Water Shortage Stage declared. Based on the rate structure for residential and landscape customers, they may therefore be charged Tier 2 or Tier 3 rates sooner than before. If these customers exceed their water budgets and begin paying Tier 2 or Tier 3 rates, they may also have to pay Volumetric Penalties. The District's usage of the Volumetric Penalties collected may include, but is not limited to, the following: pay for additional administration of the WSCP; pay MWD for allocation surcharges assessed to the District; fund additional imported water or other water supplies necessary to purchase due to the shortage; implement additional demand management measures; fund water supply resiliency capital projects; replenish the Drought Cash Reserve for the District (see Section 7); and/or fund other actions the District deems appropriate.

6.6.2 CII and Agricultural Customers

For Water Shortage Stages 3, 4 and 5 of the WSCP, CII and agricultural customers may have their water budgets reduced to coincide with available local and imported supply. For example, if MWD implements a reduction of any level, Rancho Water will determine the appropriate water budget reduction to be imposed, if any, based on the Water Shortage Stage declared and Rancho Water's Annual Assessment. Based on the rate structure for CII and agricultural customers, they may therefore be charged Tier 2 rates sooner than before. If these customers exceed their water budgets and begin paying Tier 2 rates, they may also have to pay Volumetric Penalties. The District's usage of the Volumetric Penalties collected may include, but is not limited to, the following: pay for additional administration of the WSCP; pay MWD for allocation surcharges assessed to the District; fund additional imported water or other water supplies necessary to purchase because of the shortage; implement additional demand management measures; fund water supply resiliency capital projects; replenish the Drought Cash Reserve for the District (see Section 7); and/or fund other actions the District deems appropriate.

6.6.3 Variances

The District may, in writing, grant a temporary variance from any fines, Volumetric Penalties, or restrictions imposed by the WSCP, if it is determined that failure to grant such variance would cause an emergency condition adversely affecting health, sanitation, or fire protection for the public or the person requesting such variance, and under the following conditions, which are consistent with Section 5 of the District's Water Conservation Policy:

1. Compliance with the WSCP cannot be technically accomplished during the duration of a water supply shortage or other condition for which the WSCP Shortage Stage is in effect.
2. Alternative methods or technology used as part of a District-sanctioned trial or test study can be implemented which will achieve the same level of reduction in water use.
3. Doctor-approved health circumstances, illness, or injury will be considered on a case-by-case basis.

4. No variances will be issued, beginning in Shortage Stage 3b of the WSCP, for filling swimming pools, establishing or expanding a landscape area, leaks not repaired within 48 hours, and existing outdoor water budgets.
5. Variances will be considered for health and safety issues only in Shortage Stages 4 and 5.

A written variance request shall be accepted by the District and may be denied at the sole discretion of the District. All variances must be requested in writing at any time after the WSCP's staged implementation. The following information must be provided:

1. Name, contact phone number, service address, and customer account number of petitioner.
2. Purpose of water use (e.g., domestic, commercial, agriculture).
3. Specific provision(s) of the WSCP from which the petitioner is requesting relief.
4. Detailed statement as to how the provision of the WSCP adversely affects the petitioner or what damage or harm will occur.
5. Description of the relief requested.
6. Period of time for which the variance is sought.
7. Any alternative water use restrictions (e.g., indoor use) that the petitioner is taking or proposes to take to meet the intent of the WSCP.

Section 7: Financial Consequences of WSCP

Decreased sales are an anticipated consequence of implementing the WSCP. Water shortages may also impact construction activities. A reduction in construction activities will reduce new water service connection fees collected by Rancho Water. As consumption decreases, some expenditures are expected to increase. Staff costs for community education, enforcement of ordinances, monitoring and evaluation of water use, drought planning, and dealing with customer questions and complaints are expected to rise. A shift to alternative sources would change pumping, purchase, and treatment costs, since different water supplies incur different operational and distribution expenses.

Rancho Water regularly reviews and updates rates to make sure costs are equitably apportioned to customers and reflect the cost of operating, maintaining, and improving the water system. As documented in the Rancho Water *Annual Comprehensive Financial Report*, it is the intent of the Directors that the costs of providing water and wastewater services are financed primarily through user charges; hence fixed costs are largely recovered through fixed revenues and variable costs are recovered through variable revenues. This method better positions the District to maintain a stable and equitable rate structure during normal and abnormal weather conditions, as well as during periods of drought, all of which may result in material reductions in water sales.

For the fiscal year ending June 2025, approximately 31 percent of Rancho Water's revenue came from the fixed service charge. The commodity rate is a cost per unit consumed by the customer and is meant to recover Rancho Water's costs for providing water service and a portion of fixed costs. The commodity charge also sends the customer a price signal and rewards customers who conserve water. A decrease in consumption would impact revenue from the commodity charges as estimated in Table 7-1 below. The anticipated revenue shortfalls represent the worst-case scenario for revenue shortfalls anticipated for any stage (i.e., the District applies the highest reduction possible and receives full compliance from customers).

Table 7-1
Revenue Impacts of Reduced Water Demand

Assumed Demand Reduction	Annual Revenue Reduction ($ million)
10 percent	3.26
20 percent	6.53
30 percent	16.29
40 percent	22.69
50 percent	31.22

Assumes base water sales of $54 million based on water sale revenues FY24 and FY25.

Currently, the District has implemented a Cash Reserve Policy, which includes a Drought Reserve, to address risk. . The Drought Reserve takes into account changes in the District's water supply operational costs and the reduced revenues from lower water sales. This reserve will be used to minimize any potential impacts caused by the implementation of the District's WSCP. In addition to the Drought Reserve, Rancho Water may also collect Allocation Surcharges for those who exceed their water budget allocation. These penalties may pay MWD for allocation surcharges assessed to the District, fund additional water purchases needed due to the shortage, implement additional demand management measures, fund water supply resiliency projects, and replenish the Drought Cash Reserve.

Section 8: Monitoring and Reporting

Certain aspects of water conservation can be readily monitored and evaluated, such as metered water use and production quantities. Other aspects, such as public education, are more difficult to measure in terms of effectiveness. Additionally, weather patterns make it more difficult to compare one year's water demand and conservation results with another year's.

When severe shortages occur and some degree of mandatory reduction is required, a program's effectiveness can be judged directly by water billings. In these cases, targeted results must be met and even reluctant customers will, on the whole, meet the goals. Specific methods to evaluate the effectiveness of water conservation programs to be employed by Rancho Water are:

1. Monitoring of Metered Water Usage – This will determine how much has been used. Compiling statistics to track usage of customer groups to determine trends is currently being done through the water billing computer system. Meter readings and billings can be compared and analyzed to determine the effectiveness of conservation for each customer class.
2. Monitoring Production Quantities – In normal water supply conditions, production figures are recorded daily by Rancho Water's automated system. The Water Production Supervisor and the Production Lead monitor the accuracy of the monthly production totals. The totals are incorporated into the monthly water supply report to the State by Rancho Water.

To verify that conservation reduction goals are being met, production and metered usage reports will be evaluated during each stage of the conservation period. Water production figures will be compared to previous year's production figures for the same time period to ascertain if conservation goals are being reached. Results will be posted on the Rancho Water website.

Section 9: References

Alliance for Water Efficiency (AWE). 2020. Use and Effectiveness of Municipal Irrigation During Drought. January.

American Water Works Association (AWWA) Water Conservation Programs Manual, M52. Second Edition.

County of Riverside Emergency Management Department. 2023. Multi-Jurisdictional Local Hazard Mitigation Plan. April.

Metropolitan Water District of Southern California (MWD). 2021. Water Shortage Contingency Plan. June.

Rancho California Water District (RCWD). 2025. Annual Comprehensive Financial Report for the Fiscal Year Ended June 30, 2025. October.

_____. 2024. Customer Guide Rates and Charges. July.

_____. 2024. Rancho California Water District Cash Reserve Policy, Adopted by the Board of Directors June 13, 2024.

_____. 2021 Water Conservation Policy. June.

Appendix A. Board of Directors Adoption of the 2026 WSCP

Appendix B. DWR Submittal Tables

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment
Water Code Section 10635(b)(3)

2026		Total
Total Water Use	(AF)	64,857
Total Supplies	(AF)	76,842
Surplus/Shortfall w/o WSCP Action		11,985
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2027		**Total**
Total Water Use	(AF)	67,094
Total Supplies	(AF)	75,854
Surplus/Shortfall w/o WSCP Action		8,760
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2028		**Total**
Total Water Use	(AF)	69,407
Total Supplies	(AF)	74,865
Surplus/Shortfall w/o WSCP Action		5,458
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2029		**Total**
Total Water Use	(AF)	71,800
Total Supplies	(AF)	73,665
Surplus/Shortfall w/o WSCP Action		1,865
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		
2030		**Total**
Total Water Use	(AF)	76,513
Total Supplies	(AF)	76,591
Surplus/Shortfall w/o WSCP Action		78
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)		
WSCP - supply augmentation benefit	(AF)	
WSCP - use reduction savings benefit	(AF)	
Revised Surplus/(shortfall)		

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

NOTES:

Submittal Table 8-1: Cross-reference for Standard vs Supplier Shortage Levels Water Code Section 10632(a)(3)(B)			
☐	Check the box if the Supplier uses the Standard six levels of water shortage. Proceed to the next table.		
Standard Shortage Levels	**Percent Shortage Range**	**Suppliers Shortage Levels**	**Percent Shortage Range**
1	Up to 10%	3b	0-10
2	Up to 20%	4a, 4b	11 -20
3	Up to 30%	4c	21-30
4	Up to 40%	5a, 5b	31 to 40
5	Up to 50%	5c	41 to 50
6	>50%	6	greater than 50
NOTES:			

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
Add additional rows as needed					
1	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
1	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
1	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
1	Provide Rebates for Turf Replacement	Percentage	1,063	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 20% uptake at this stage of water shortage	No
1	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50%	No
1	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	No
1	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		No
2	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
2	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
2	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
2	Provide Rebates for Turf Replacement	Percentage	1,063	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 20% uptake at this stage of water shortage	No
2	Provide Rebates for Landscape Irrigation Efficiency	Percentage	532	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 10% at this stage	No
2	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	No

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
2	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
2	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		No
3a	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
3a	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
3a	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
3a	Provide Rebates for Turf Replacement	Percentage	1,063	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 20% uptake at this stage of water shortage	No
3a	Provide Rebates for Landscape Irrigation Efficiency	Percentage	532	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 10% uptake at this stage	No
3a	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	No
3a	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
3a	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		No
3b	Implement or Modify Drought Rate Structure or Surcharge	Percentage	1,063	Suspend rolling budgets; no variances for filling swimming pools; residential and landscape Tier 3 budgets decreased up to 50%. Agricultural, CII and agricultural/residential Tier 2 are decreased by up to 50%. Assumes 100 % compliance	Yes
3b	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
3b	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
3b	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
3b	Provide Rebates for Turf Replacement	Percentage	1,595	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 30% uptake at this stage of water shortage	No
3b	Provide Rebates for Landscape Irrigation Efficiency	Percentage	532	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 10%	No
3b	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	Yes
3b	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
3b	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
3b	Other - Require automatic shut of hoses	Percentage	0		Yes

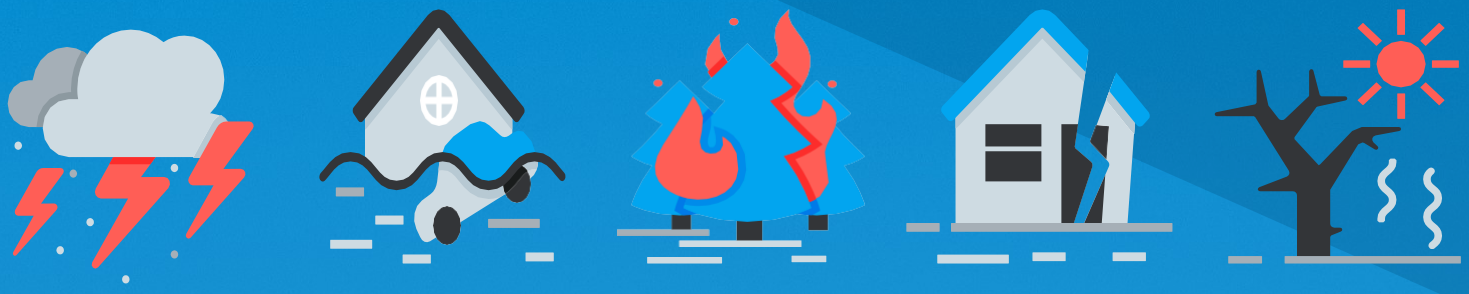
Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
3b	CII - Restaurants may only serve water upon request	Percentage	0		Yes
3b	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
3c	Implement or Modify Drought Rate Structure or Surcharge	Percentage	2,658	Residential and landscape Tier 3 budgets decreased up to 100%. Agricultural, CII and agricultural/residential Tier 2 are decreased by up to 100%. Assumes 100% compliance	Yes
3c	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
3c	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
3c	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
3c	Provide Rebates for Turf Replacement	Percentage	1,595	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 30% uptake at this stage of water shortage	No
3c	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No
3c	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	Yes
3c	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
3c	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
3c	Other - Require automatic shut of hoses	Percentage	0		Yes
3c	CII - Restaurants may only serve water upon request	Percentage	0		Yes
3c	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
4a	Implement or Modify Drought Rate Structure or Surcharge	Percentage	11,165	Residential Tier 2 budgets are decreased by up to 49%; Landscape budgets are completely eliminated and CIII, agricultural and agricultural/residential Tier 1 budgets are decreased by up to 10%. Assumes 100% compliance	Yes
4a	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
4a	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
4a	Offer Water Use Surveys	Percentage	1,063	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 20% uptake	No
4a	Provide Rebates for Turf Replacement	Percentage	1,595	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 30% uptake at this stage of water shortage	No
4a	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
4a	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	Require recirculating system	Yes
4a	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
4a	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
4a	Other - Require automatic shut of hoses	Percentage	0		Yes
4a	CII - Restaurants may only serve water upon request	Percentage	0		Yes
4a	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
4a	Other - Prohibit use of potable water for construction and dust control	Percentage	0	No new POTABLE hydrant construction or tempor	Yes
4a	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety, unless water demand is offset to a net zero increase.	Yes
4a	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
4b, 4c	Implement or Modify Drought Rate Structure or Surcharge	Percentage	16,482	Residential Tier 2 budgets are decreased by up to 100%; Landscape budgets are completely eliminated and CIII, agricultural and agricultural/residential Tier 1 budgets are decreased by up to 45%. Assumes only 60% compliance at this stage	Yes
4b, 4c	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
4b, 4c	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
4b, 4c	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 50% uptake	No
4b, 4c	Provide Rebates for Turf Replacement	Percentage	2,658	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 50% uptake at this stage of water shortage	No
4b, 4c	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No
4b, 4c	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	No water for decorative fountains allowed, even if it has a re-circulating system	Yes
4b, 4c	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
4b, 4c	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
4b, 4c	Other - Require automatic shut of hoses	Percentage	0		Yes
4b, 4c	CII - Restaurants may only serve water upon request	Percentage	0		Yes

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
4b, 4c	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
4b, 4c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
4b, 4c	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety, unless water demand is offset to a net zero increase.	Yes
4b, 4c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5a, 5b	Implement or Modify Drought Rate Structure or Surcharge	Percentage	17,545	Residential Tier 1 budgets are decreased up to 30%; agricultural and agricultural/residential Tier 1 budgets are decreased by up to 60%. Assumes 50% compliance	Yes
5a, 5b	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
5a, 5b	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
5a, 5b	Offer Water Use Surveys	Percentage	1,595	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 50% uptake	No
5a, 5b	Provide Rebates for Turf Replacement	Percentage	2,658	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 50% uptake at this stage of water shortage	No
5a, 5b	Provide Rebates for Landscape Irrigation Efficiency	Percentage	1,595	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of 50% at this stage	No
5a, 5b	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	No water for decorative fountains allowed, even if it has a re-circulating system	Yes
5a, 5b	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
5a, 5b	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
5a, 5b	Other - Require automatic shut of hoses	Percentage	0		Yes
5a, 5b	CII - Restaurants may only serve water upon request	Percentage	0		Yes
5a, 5b	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
5a, 5b	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5a, 5b	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety.	Yes
5a, 5b	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5a, 5b	Other water feature or swimming pool restriction	Percentage	0	Water for refilling pool and spa is prohibited	Yes

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)					
No	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
5c	Implement or Modify Drought Rate Structure or Surcharge	Percentage	19,672	Residential Tier 1 budgets are decreased by 50%; agricultural and agricultural/residential Tier 1 budgets are decreased by up to 70%. Assumes 50% compliance	Yes
5c	Expand Public Information Campaign	Percentage	266	AWWA 2011 assumes 0.5% for residential users. Insert bill inserts; contact local newspapers; update website	No
5c	Improve Customer Billing	Percentage	0	Customers can track water usage on a day-to-day basis with an easy-to-use digital platform.	No
5c	Offer Water Use Surveys	Percentage	2,127	Single-family, multifamily, landscape and CII customers can request a free landscape audit. AWWA 2011 assumes savings of 10% for residential single family users. Adjusted for 50% residential customers and 80% uptake	No
5c	Provide Rebates for Turf Replacement	Percentage	4,253	Offered through ongoing MWD programs. Additonal rebate from District in 2021. AWE assumes 10%. District assumes 80% uptake at this stage of water shortage	No
5c	Provide Rebates for Landscape Irrigation Efficiency	Percentage	2,127	Based on AWE Drought restrictions handbook assumes savings of 5%. Assumes uptake of80% at this stage	No
5c	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0	No water for decorative fountains allowed, even if it has a re-circulating system	Yes
5c	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0		No
5c	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0		Yes
5c	Other - Require automatic shut of hoses	Percentage	0		Yes
5c	CII - Restaurants may only serve water upon request	Percentage	0		Yes
5c	CII - Lodging establishment must offer opt out of linen service	Percentage	0		Yes
5c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5c	Moratorium or Net Zero Demand Increase on New Connections	Percentage	0	No new water meters allowed, except for health and safety.	Yes
5c	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	0		Yes
5c	Other water feature or swimming pool restriction	Percentage	0	Water for refilling pool and spa is prohibited	Yes
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

Appendix C. Rancho California Water District Local Hazard Mitigation Plan 2023-2027



Rancho California Water District

Local Hazard Mitigation Plan

2023-2027

Rancho Water

WORKING FOR OUR COMMUNITY

CONTACT INFORMATION

Special District

Rancho California Water District
42135 Winchester Road
Temecula, CA 92590

Direct Contact:	Kristian Alfelor
Title:	Safety and Risk Officer
Office	951-296-6948
Fax:	951-296-6863
Email:	alfelork@ranchowater.com

PLAN ADOPTION/RESOLUTION

The Rancho California Water District (Rancho Water/District) will submit plans to the Riverside County Emergency Management Department which will forward to the California Governor's Office of Emergency Services (CAL-OES) for review prior to being submitted to the Federal Emergency Management Agency (FEMA). In addition, the District will wait to receive an "Approval Pending Adoption" letter from FEMA before taking the plan to local governing bodies for adoption. Upon approval, Rancho Water will insert the signed resolution.

EXECUTIVE SUMMARY

The purpose of this local hazard mitigation plan (LHMP) is to identify the County of Riverside's (County) hazards, review and assess past disaster occurrences, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term risks to people and property from natural and man-made hazards.

The plan was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 to achieve eligibility and potentially secure mitigation funding through Federal Emergency Management Agency (FEMA) Flood Mitigation Assistance, Pre-Disaster Mitigation, and Hazard Mitigation Grant Programs.

Rancho Water's continual efforts to maintain a disaster-mitigation strategy are ongoing. The District's goal is to develop and maintain an all-inclusive plan to include all jurisdictions, special districts, businesses, and community organizations to promote consistency, continuity, and unification.

The District's planning process followed a methodology presented by FEMA and CAL-OES that included conducting meetings with the Operational Area Planning Committee (OAPC), coordinated by Riverside County Emergency Management Department (EMD), comprised of participating federal, state, and local jurisdictional agencies, special districts, school districts, non-profit communities, universities, businesses, tribes, and the general public.

The plan identifies vulnerabilities, provides recommendations for prioritized mitigation actions, evaluates resources and identifies mitigation shortcomings, and provides future mitigation planning and maintenance of the existing plan.

The plan will be implemented upon FEMA approval.

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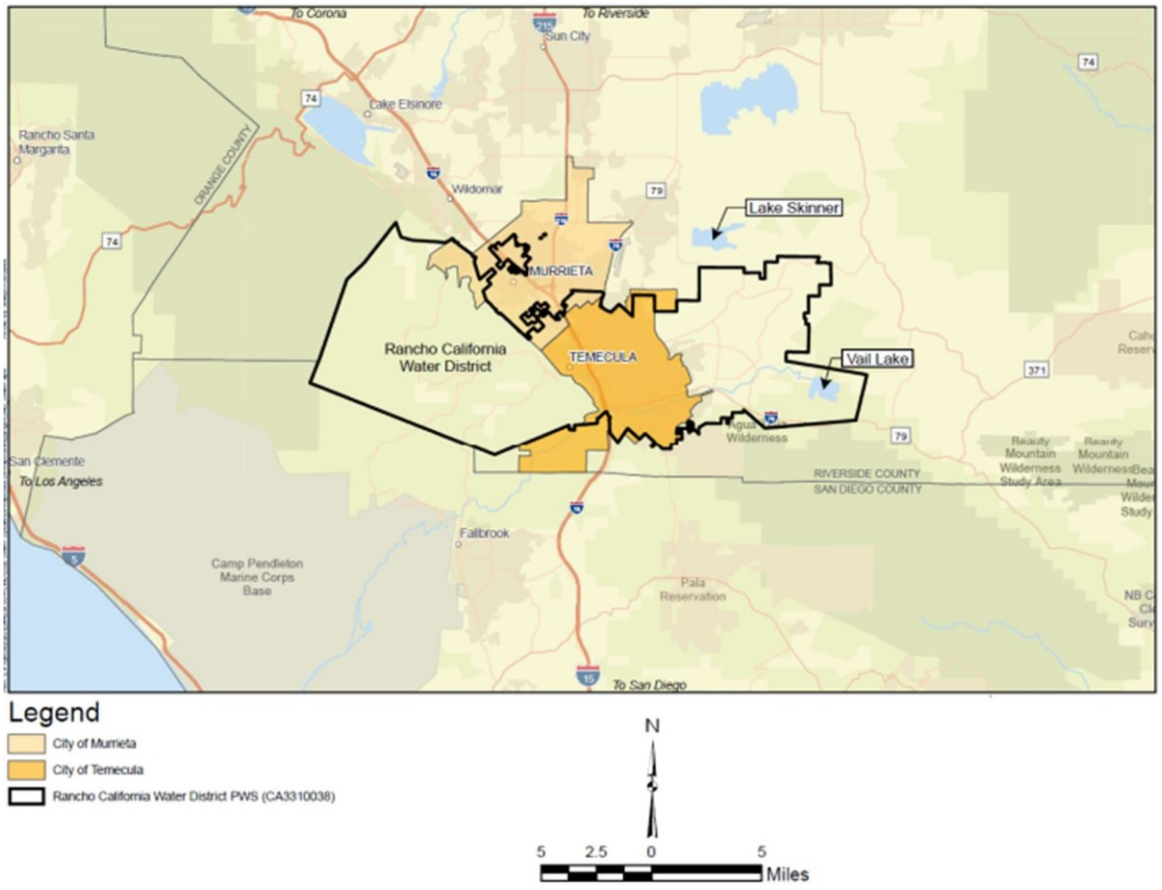
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SECTION 1.0 - COMMUNITY PROFILE

1.1 SPECIAL DISTRICT MAP



1.2 GEOGRAPHY AND CLIMATE DESCRIPTION

Rancho Water serves the area known as Temecula/Rancho California, which includes the city of Temecula, portions of the city of Murrieta, and unincorporated areas of southwest Riverside County. The jurisdictional area served is approximately 156 square miles and is 42 miles south of the county seat, the city of Riverside. The jurisdiction sits directly adjacent to San Diego County on its eastern and southern boundaries, and is bordered by the city of Murrieta on the northwest and the Pechanga Indian Reservation on the south, with unincorporated areas of Riverside County on all of its other borders. It is served by the Interstate 15 (Temecula Valley Freeway), Interstate 215, and California State Route 79 (Winchester Road to the northeast and Temecula Parkway to the southeast). The closest rail-line/railroad service is located 23 miles away in the city of Perris.

The regional climate is Mediterranean with hot, arid summers and mostly clear winters that are long, cool, and partly cloudy. The temperature typically varies from 41 to 89 degrees Fahrenheit and is rarely below 34 degrees Fahrenheit or above 96 degrees Fahrenheit. The area's temperature is influenced by prevailing onshore winds from the Pacific Ocean and the rain shadow effect from the Santa Rosa Mountains. The "Santa Ana winds" can cause periods of extremely hot weather with dry winds. Winter daytime temperatures are mild, averaging in the mid-60-degree range. Total annual precipitation for the region averages 12.01 inches per year. During very wet years, rainfall can exceed 25 inches, while during very dry years rainfall can be less than 1 inch. Rainfall is more prevalent during the months of November through April.

1.3 HISTORY

The District provides water and reclamation services to the city of Temecula, portions of the city of Murrieta, and unincorporated areas of Riverside County. The mission of Rancho Water is to deliver reliable, high-quality water and reclamation services to its customers and communities in a prudent and sustainable manner.

The Temecula area was developed in the 1880s along the California Southern Railroad. Temecula served as an important shipping center for cut granite from nearby quarries. In the early 1900s, 87,000 acres of land within the District were acquired by the Vail Company. These lands were developed by the Vail Company into a very successful cattle ranch. The Vail Ranch used the higher mesa lands for grazing and growing dry farm crops, while the Pauba Valley irrigated crops such as alfalfa, melons, and potatoes. Initially, irrigation was achieved through direct diversion of water from Temecula Creek. Later, artesian and other wells were drilled in the valley. In 1948, Vail Dam was constructed on Temecula Creek in Butterfield Canyon. Vail Lake's storage capacity provided additional irrigation water for the Pauba Valley.

In 1964, Rancho California was created when the Vail Ranch was purchased by the land development partnership of Kaiser Corporations and Macco Realty Company. The partnership implemented a master development plan with a goal to create a balanced residential, commercial, and industrial community while maintaining its rural qualities of open spaces and agricultural production lands. The developers were instrumental in forming two water districts to provide a continued and reliable water supply.

The District was formed in 1965 over the easterly 41,000 acres, and the Santa Rosa Ranches Water District (SRRWD) was formed in 1968 over the westerly 46,000 acres. Each district was organized as a California Water District, which entitled property owners one vote for each $100 of assessed land valuation in electing a Board of Directors. To provide a supplemental imported water supply, the District was concurrently annexed to Eastern Municipal Water District (EMWD) and Metropolitan Water District of Southern California (MWD) in 1966. EMWD was also granted powers to collect, treat, and dispose of wastewater within the District. Similarly, the SRRWD was concurrently annexed into Western Municipal Water District (WMWD) of Riverside County and MWD. SRRWD, however, reserved its wastewater service powers.

MWD serves as a regional wholesaler of imported water over a wide area of Southern California, from Los Angeles to San Diego. EMWD and WMWD are member agencies of MWD and purchase imported water from MWD to retail to smaller local jurisdictions. Historically, the District has relied on local groundwater supplemented with MWD imported water to meet domestic and agricultural demands.

In 1977, the two districts, Rancho Water and SRRWD, were consolidated as a single district known as the Rancho California Water District. The original Rancho Water had approved a general obligation bond issue of 55 million dollars in 1966, and SRRWD had similarly approved 63 million dollars in bonds in 1968. Since these bond issues are still applicable over the original lands within each district, separate divisions known as the Rancho Division and the Santa Rosa Division have been maintained for accounting purposes.

Treated imported water (potable) is received from MWD's storage and filtration facility at Lake Skinner directly into the District's distribution system through 4 turnouts. The District operates 31 potable water pump stations and 48 active potable groundwater production wells, and maintains 39 potable water storage reservoirs with a capacity of 149.7 million gallons (MG). The potable water system includes over 950 miles of water pipelines that convey water from its source to District customers.

In addition, the District owns an open (surface) reservoir, Vail Lake, with a storage capacity of approximately 45,000 acre-feet (AF). Vail Lake is used to help recharge the downstream Temecula Valley groundwater basin, using natural runoff. Raw water is delivered to the District from MWD's Pipeline No. 5 through turnout WR-34, and Pipeline No. 6 through turnout EM-21. Raw water from EM-21 is conveyed through the Pauba Valley Transmission Main in De Portola Road to the District's Valle De Los Caballos (VDC) Recharge and Recovery Facility. This system consists of 26 wells (included in the 48 active wells) and the Upper VDC and Lower VDC Percolation Basins. The raw water system is depicted in Figure 1-2.

The District operates 6 recycled water pump stations and 3 active recycled groundwater production wells, and maintains 4 recycled water storage reservoirs with a combined capacity of 7.5 MG. The District owns 5 recycled water seasonal storage ponds with a total of 1,495 acre-feet per year (AFY) of storage. The recycled water system includes 58.9 miles of water pipelines that convey recycled water primarily for irrigation purposes. The recycled water supply is from tertiary facilities at the Santa Rosa Water Reclamation Facility (SRWRF) and the seasonal storage ponds constructed adjacent to the reclamation facility. Recycled water is also received from the Temecula Valley Regional Water Reclamation Facility (TVRWRF) under agreement with EMWD. The recycled water system is depicted in Figure 1-3.

The District is a "Special District" organized and operated pursuant to the California Water Code, and is governed by a 7-member Board of Directors that is elected by the voters of the region. The District also provides wastewater collection in the Santa Rosa Division. Wastewater facilities include 52 miles of gravity mains, 2 lift stations and 2.5 miles of force mains. This flow is conveyed to a collection system that is owned and operated by the Santa Rosa Regional Resources Authority (SRRRA). The SRRRA is a Joint Powers Authority with 3 member agencies: the District, Elsinore Valley Municipal Water District (EVMWD), and WMWD. The SRRRA also provides treatment at the SRWRF, a 5-million gallon per day (MGD) sequencing batch reactor treatment facility with conventional advanced wastewater treatment.

Over the past 30 years, a number of areas have been annexed into Rancho Water within either division, bringing the total gross water service area of the District to 99,195 acres. In 1990, the District's total gross water service area was 98,038 acres, which grew to 98,907 acres by 2000. In 2010, the District's total gross water service area was identical to today's current size.

1.4 ECONOMIC DESCRIPTION

The Rancho Water service area is primarily a residential community with horse ranches, avocado farms, and wineries. With its highly educated workforce and close proximity to San Diego's technology cluster, the twin cities of Temecula and Murrieta are increasingly tied economically to San Diego's diverse economy. The two largest Temecula Valley employers, according to the California Employment Development Department, are: Abbott Vascular (Temecula) and the Southwest Healthcare System (Murrieta).

1.5 POPULATION AND HOUSING

The cities of Temecula and Murrieta have become desirable places to live due to their proximity to major cities in Southern California and a lower relative cost of living. Both cities have experienced significant population growth and have a need for reliable water supplies. The District includes approximately 9,100 irrigated acres of agriculture and ranch lands, primarily vineyards, avocado, and citrus trees. The Temecula Valley is a premiere wine grape growing area in California, which, coupled with other high-value crops, requires a consistent irrigation supply. Major agricultural acreage is concentrated in the southwestern and eastern portions of the District and the service area is largely developed. Additionally, the anticipated rate of population and housing growth as it relates to the increased vulnerability of the community are minimal.

Temecula Population Summary

Population	
Population Estimates, July 1 2021, (V2021)	110,846
Population estimates base, April 1, 2020, (V2021)	110,130
Population, percent change - April 1, 2020 (estimates base) to July 1, 2021, (V2021)	0.70 percent
Population, Census, April 1, 2020	110,003
Population, Census, April 1, 2010	100,097
Housing	
Owner-occupied housing unit rate, 2016-2020	65.90 percent
Median value of owner-occupied housing units, 2016-2020	$464,900
Median selected monthly owner costs -with a mortgage, 2016-2020	$2,420
Median selected monthly owner costs -without a mortgage, 2016-2020	$643
Median gross rent, 2016-2020	$1,935
Economy	
In civilian labor force, total, percent of population age 16 years+, 2016-2020	64.20 percent
In civilian labor force, female, percent of population age 16 years+, 2016-2020	57.30 percent
Total accommodation and food services sales, 2017 ($1,000)(c)	455,537
Total health care and social assistance receipts/revenue, 2017 ($1,000)(c)	531,358
Total transportation and warehousing receipts/revenue, 2017 ($1,000)(c)	103,847
Total retail sales, 2017 ($1,000)(c)	3,163,971
Total retail sales per capita, 2017(c)	$28,059

Murrieta Populations Summary

Population	
Population Estimates, July 1 2021, (V2021)	112,991
Population estimates base, April 1, 2020, (V2021)	111,050
Population, percent change - April 1, 2020 (estimates base) to July 1, 2021, (V2021)	1.70 percent
Population, Census, April 1, 2020	110,949
Population, Census, April 1, 2010	103,466
Housing	
Owner-occupied housing unit rate, 2016-2020	66.10 percent
Median value of owner-occupied housing units, 2016-2020	$435,700
Median selected monthly owner costs -with a mortgage, 2016-2020	$2,411
Median selected monthly owner costs -without a mortgage, 2016-2020	$672
Median gross rent, 2016-2020	$1,859
Economy	
In civilian labor force, total, percent of population age 16 years+, 2016-2020	62.50 percent
In civilian labor force, female, percent of population age 16 years+, 2016-2020	55.20 percent
Total accommodation and food services sales, 2017 ($1,000)(c)	212,911
Total health care and social assistance receipts/revenue, 2017 ($1,000)(c)	735,257
Total transportation and warehousing receipts/revenue, 2017 ($1,000)(c)	43,185
Total retail sales, 2017 ($1,000)(c)	1,666,475
Total retail sales per capita, 2017(c)	$14,738

1.6 RANCHO WATER DEVELOPMENT TRENDS AND LAND USE

The residential growth within the District's service area will continue to expand as there are many people attracted to the cities of Temecula and Murrieta, and the unincorporated County areas that surround them. Steady growth has occurred within the service area boundaries since the adopted 2017 LHMP. Because much of the city of Temecula, which makes up a large portion of the District's service area, has already been developed, no major growth is anticipated over the next five (5) years. Therefore, the impacts of additional development and land as it relates to the vulnerability of the community are minimal.

In August 2014, Rancho Water acquired approximately 7,700 acres of the Vail and Sundance Ranch properties surrounding Vail Lake, significantly increasing the District's land holdings. Rancho Water's land holdings total 8,444 acres when Vail Lake and other District property are included. The use of the Vail Property is to protect and enhance the District's water resources, to preserve the biological resources through habitat conservation and restoration, and to provide a variety of appropriate land- and water-based recreational opportunities and is not growth inducing.

SECTION 2.0 - PLANNING PROCESS

2.1 LOCAL PLANNING PROCESS

Rancho Water has developed a LHMP team, with representatives from the District's safety/risk, engineering, operations, finance, public information, water resources planning, and administration departments that will meet as required. The meetings will be focused on specific questions or issues during the LHMP update process. The LHMP team met on 09/1/2022 and 11/15/2022. All members were present on both days.

LHMP Team Members:

Danielle Coats, Senior Government and Public Affairs Manager
Eileen Dienzo, Director of Human Resources
Jake Wiley, Assistant General Manager
Justin Weeks, Field Services Manager
Jason Martin, Director of Administration
Jeff Kirshberg, Director of Planning
Kimberly Wall, Public Information Officer II
Tom Marcoux, Safety and Risk Officer

2.2 PARTICIPATION IN REGIONAL (OA) PLANNING PROCESS

On May 18, 2022, Rancho Water began working with Riverside County Emergency Management Department (EMD), Preparedness and Planning Division on the update of the District's 2017 LHMP. Throughout this process, the primary means of communication has been email traffic and phone calls between Rancho Water and EMD. The following actions have been taken:

- 5/23/2022: Rancho Water submitted a letter of commitment to EMD to confirm that the District agrees to participate in the Riverside County EMD's Multi-Jurisdictional Hazard Mitigation Planning.

- 6/15/2022: Rancho Water attended Riverside County EMD's Multi-Jurisdictional LHMP kickoff meeting via Microsoft teams. At the kickoff meeting, EMD gave an overview of the update process, important review items, and resource materials for completing the LHMP update.

- 9/1/2022: Rancho Water held its LHMP planning meeting with members from its LHMP Planning Team. An overview was given of planning process, the requirements of the LHMP, and outreach efforts. As a planning team, hazards to profile were evaluated as a team and selected based on their applicability to Rancho Water.

- 9/2/2022: The LHMP Planning Team completed a survey to prioritize hazards based on their probability, location, primary impact, secondary impact.

- 9/14/2022: Rancho Water's Safety Officer met with the Riverside County Southwest Emergency Managers Group in Lake Elsinore to discuss the District's LHMP update.

- 9/15/2022: The District's Safety Officer conducted a public presentation on the LHMP at the District's Planning and Administration Committee. No public comments were made.
- 9/27/2022: Rancho Water published a survey seeking public input on the update of the District's LHMP. Survey link was emailed to all District customers, posted on the District website, broadcasted on social media, and distributed at the Temecula Preparedness Fair on 11/19/2022.

- 11/15/2022: The District LHMP Planning Team met to discuss goals, actions, and prioritization and ranking of projects based off the profiled hazards.

2.3 RANCHO WATER DATES AVAILABLE FOR PUBLIC COMMENT

The District posted a notice of the Hazard Mitigation Planning process on its website and social media platforms to provide opportunity for public comment during the development of the LHMP and draft review; see screenshots below:



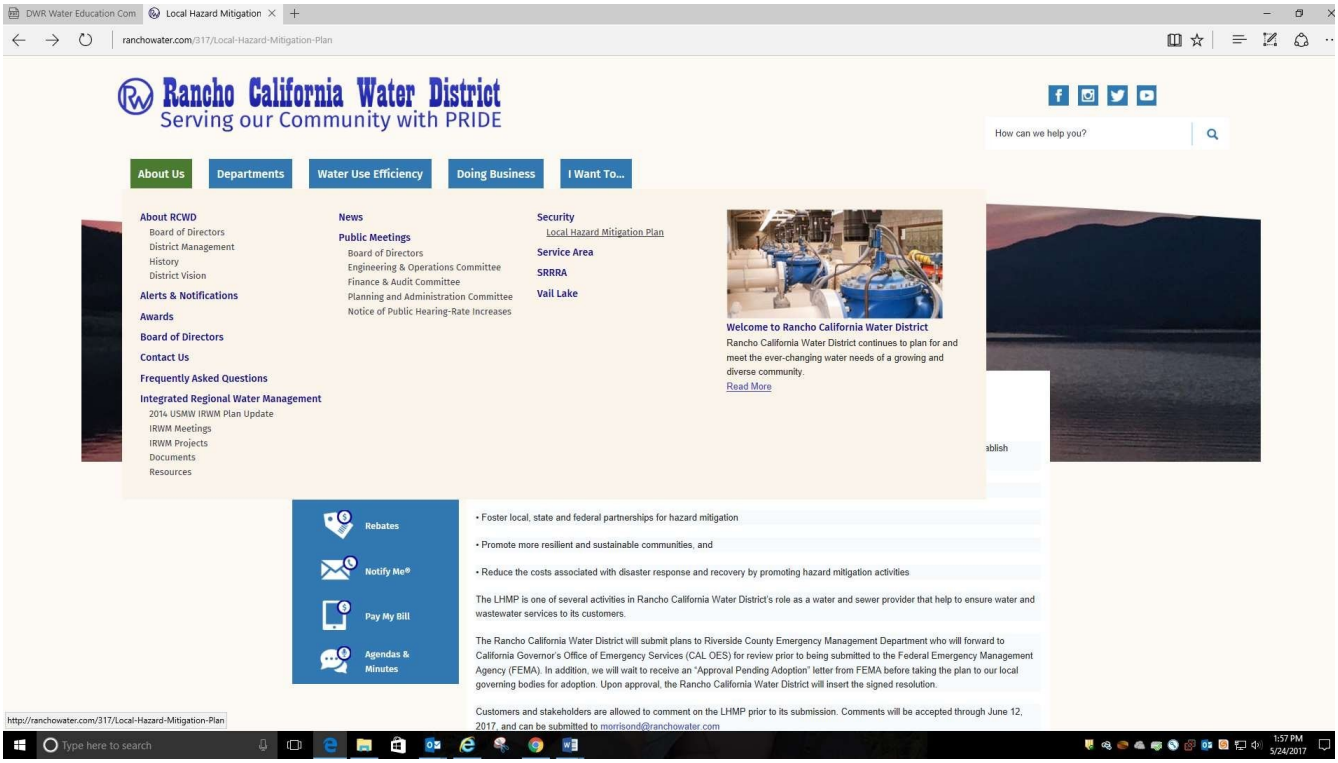
← **Tweet**

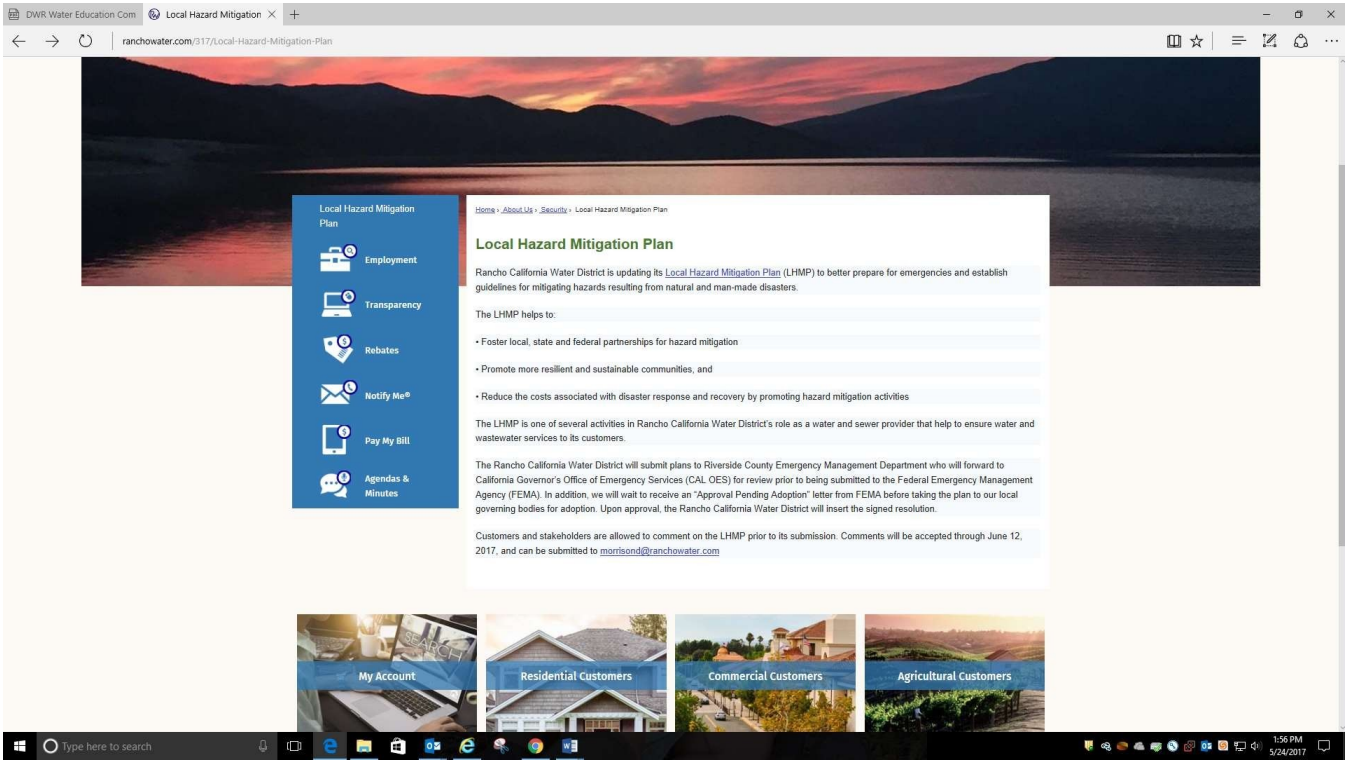
RanchoWater
@RanchoWater

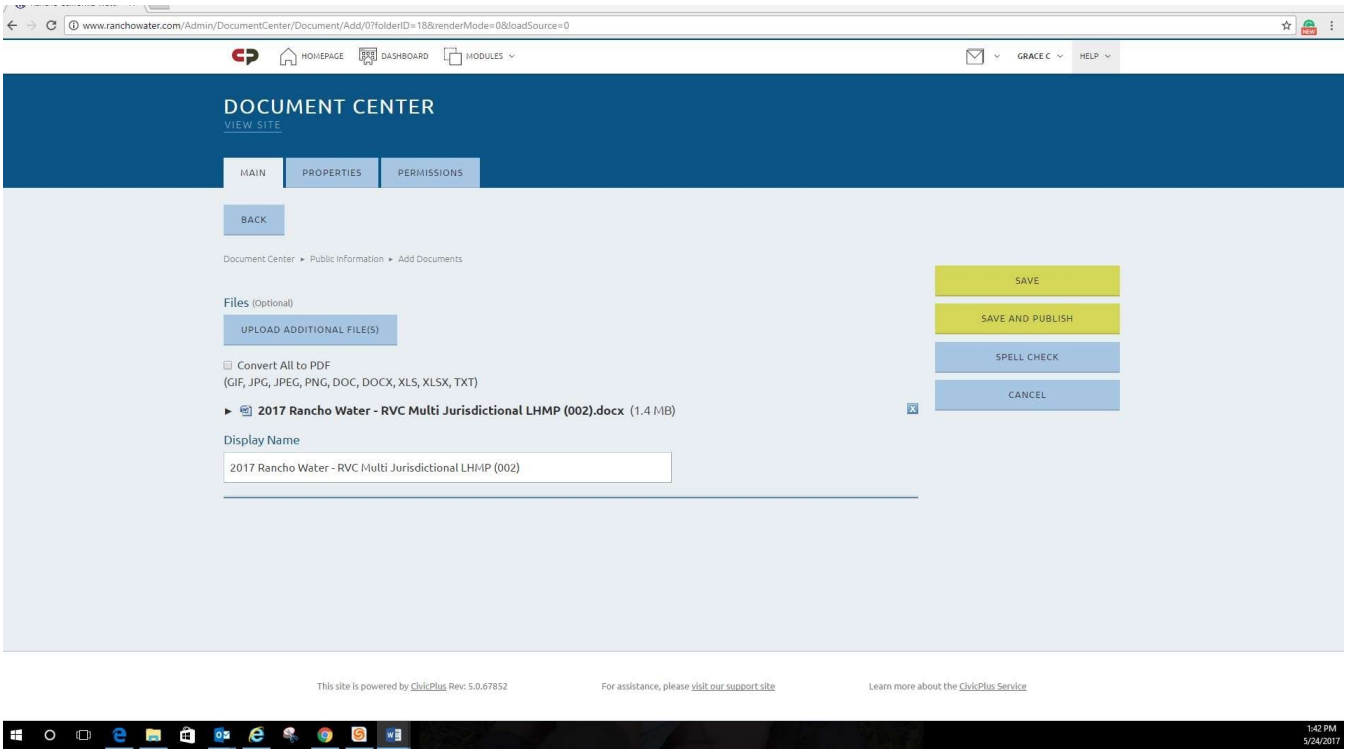
Today is International Day for Disaster Reduction. Help us honor the day by completing our quick survey about disaster mitigation. What's important to you? Drought? Wildfire? Earthquakes? Fill out the survey here: surveymonkey.com/r/RWHazardMit



8:00 AM · Oct 13, 2022 · Twitter Web App







In addition, Rancho Water held a public meeting on January 19, 2023 to review the Draft plan with the District's Planning and Administration Committee and the public. Rancho water received no public comments during the meeting.

2.4 PLANS ADOPTED BY RESOLUTION

The District's Board of Directors adopted, by Resolution, the District's 2017 Multi-Jurisdictional LHMP to meet the requirements of the Disaster Mitigation Act of 2000. Upon approval by FEMA, the 2023 LHMP will be presented to the Rancho Water Board of Directors in a public meeting for adoption via an official Resolution.

SECTION 3.0 – MITIGATION ACTIONS/UPDATES

3.1 UPDATES FROM 2017 PLAN

The 2017 LHMP information regarding hazards analyzed in the plan has been reviewed. There were five new hazards identified: extreme weather, landslide/mudslide, geological hazards, public health emergency, and wildland fire. New hazards were added in response to recent events or new discovery. Agricultural hazard was removed due to the inapplicability to District assets.

3.2 DISTRICT SERVICE AREA HAZARDS

HAZARD	PROBABILITY	SEVERITY	HEALTHCARE	EMS	BEHAVIORAL / MENTAL HEALTH	RESPONDER AGENCIES	COMMUNITY AGENCIES	*RISK SCORE*
	Improbable: 0 Remote: 1 Occasional: 2 Probable: 3 Frequent: 4	NA: 0 Negligible: 1 Marginal: 2 Critical: 3 Catastrophic: 4	NA: 0 Negligible: 1 Marginal: 2 Critical: 3 Catastrophic: 4	NA: 0 Negligible: 1 Marginal: 2 Critical: 3 Catastrophic: 4	NA: 0 Negligible: 1 Marginal: 2 Critical: 3 Catastrophic: 4	NA: 0 Low: 1 Moderate: 2 High: 3 Extreme: 4	NA: 0 Low: 1 Moderate: 2 High: 3 Extreme: 4	
Aqueduct	2	3	2	2	2	2	3	**0.38**
Drought	3	3	2	2	2	2	2	**1.13**
Earthquake	2	4	4	4	3	2	2	**3.50**
Extreme Weather	2	3	2	2	2	2	2	**0.75**
Flood	3	3	2	3	2	2	3	**1.13**
Insect Infestation	3	2	2	1	1	2	2	**0.00**
Landslide	3	3	1	1	1	2	2	**-0.56**
Tornado	1	2	2	2	2	2	2	**0.25**
Wildland Fire	4	3	3	3	3	3	3	**2.25**
Civil Disorder	2	3	3	3	1	4	0	**1.13**
Communications Failure	2	3	3	3	3	3	3	**1.13**
Cyber Attack	4	2	3	2	2	3	1	**1.50**
Dam Failure	1	3	2	3	2	2	3	**0.38**
Electrical Failure	4	4	2	2	2	2	2	**2.00**
HazMat Incident	4	3	2	2	1	3	3	**-0.75**
Jail/Prison Event	1	2	1	1	1	4	0	**-0.13**
Nuclear/Radiological Incident	1	4	2	3	3	2	2	**1.00**
Pipeline Disruption	2	3	2	2	1	3	3	**-0.38**
Terrorist Event - MCI	1	3	3	3	4	3	1	**1.13**
Transportation Failure	2	3	2	2	1	2	2	**0.38**
Water Supply Disruption/Contamination	3	2	0	0	0	2	2	**-1.50**
Emergent Disease/Contamination	3	3	3	3	2	3	2	**1.69**
Pandemic Flu	2	4	4	4	4	3	2	**3.50**

3.2 BRIEF STATEMENT OF UNIQUE HAZARDS

Rancho Water has three dams near its service area: 1) Vail Lake and Vail Dam, located on Temecula Creek, in the Butterfield Valley, south of Oak Mountain, in the Santa Margarita River Watershed, approximately 15 miles (24 km) east of Temecula. Vail Lake and Vail Dam are owned and operated by the District; 2) The Skinner Clearwell Dam/Skinner Reservoir, also known as Lake Skinner, is a reservoir in western Riverside County, California, located at the foot of Bachelor Mountain in the Auld Valley, approximately 10 miles (15 km) northeast of Temecula; and 3) Diamond Valley Dam and Lake, located within the Domenigoni/Diamond Valleys, between the Domenigoni Mountains and Rawson Mountains, 4 miles (6.4 km) southwest of the city of Hemet. Both Lake Skinner and Diamond Valley Dam and Lake are owned and operated by MWD.

3.3 MITIGATION PROJECT UPDATES

Hazard	Mitigation	Description	Status
Earthquake	Vail Dam Seismic and Hydrologic Remediation	Vail dam to be replaced in order to satisfy DSOD safety requirements	New Vail Dam design at 90 percent
Drought	Groundwater Basin Management	Optimize groundwater basin management and utilize the District's Water Shortage Contingency Plan	Groundwater Basin Management on-going. Completed update of the water shortage contingency plan in 2021
Wildfire	Fire Resistant Vegetation	Adequately irrigate, install fire resistant vegetation, and establish fire break around facilities	Project currently in Progress with expected completion in 2024. Action is being carried over from previous LHMP.
Earthquake	Seismic Upgrades	Harden pump stations against potential earthquake movement	Action is being carried over from previous LHMP. Planning in progress
Earthquake	Reservoir Inlet/Outlet Seismic Retrofit	Retrofit District reservoir inlet/ outlet piping to protect against earthquakes	Action is being carried over from previous LHMP. Planning in progress
Earthquake	Corrosion Control Program	Continue developing a corrosion control program to improve the reliability and maintenance of pipelines and steel tank reservoirs	In progress, expect to have an implementation plan completed in 2024. Action is being carried over from previous LHMP.

SECTION 4.0 - HAZARD IDENTIFICATION AND RISK ASSESSMENT

4.1 HAZARD IDENTIFICATION

In order to determine the potential impacts of hazards to the people, economy, and built and natural environments of the community, the planning team began the risk assessment process through the identification of applicable hazards. Based on the FEMA Hazard Summary Worksheet, the planning team met to identify hazards to include, add, and exclude summarized below in table 4-1.

Table 4-1 Hazard Identification

Hazards & Profile	Included in LHMP	Discussion of Hazard's Inclusion or Exclusion
Avalanche	No	Not applicable to Rancho Water. Snowfall does not occur regularly within the service area
Dam Failure	Yes	Rancho Water owns and operates Vail Lake Dam.
Drought	Yes	
Earthquake	Yes	Multiple fault lines are located within or are adjacent to the District service area.
Erosion	No	Coastal erosion not applicable to Rancho Water. Erosion in designated flood channels addressed under flooding.
Expansive Soils	Yes	Expansive soils potentially widespread throughout the District service area.
Extreme Cold	No	Rancho Water does not consistently experience extreme freezing temperatures. Winter storms are addressed in severe weather.
Extreme Heat	Yes	Employees of the District are consistently exposed to high heat during summer months.
Extreme Rainfall	Yes	Rainfall events in the past have exposed and damaged Rancho Water infrastructure.
Flood	Yes	Multiple District assets are located within FEMA 100 and 500 year flood zones.

Hazards	Included in LHMP	Discussion or Exclusion
Hail	No	The service area does not frequently experience hailstorms
Human Caused-Cyber Attack	Yes	Water utilities have been experiencing increased cyber security attacks nationwide.
Human Caused-Hazardous Material Spill	Yes	Numerous hazardous materials suppliers and hazardous waste generators operate within the Rancho Water service area.
Human Caused-Supply Chain Failure	Yes	Shortages such as chlorine have recently threatened water utilities nationwide.
Human Caused-Terrorism	Yes	Acts of intentional contamination have occurred across the state against water utilities.
Hurricane	No	While Rancho Water could experience heavy rainfall in the wake of a dissipated hurricane or tropical storm, this hazard is not expected to occurred within the service area.
Landslide/ Mudslide	Yes	Portions of the District service area are susceptible to landslides. In addition, areas impacted by wildfires may become vulnerable to mudslides.
Lightening	No	No historically significant occurrences within the service area.
Public Health Emergency	Yes	At the time of the LHMP update, the state of California is under emergency orders in regards to COVID-19.
Sea Level Rise	No	No applicable to Rancho Water.
Severe Wind	Yes	High winds routinely shut down electrical grids within the District service area.
Severe Winter Weather	Yes	Rancho Water does not experience routine snowfall, but can experience severe winter weather in the form of extreme rainfall.

Hazards	Included in LHMP	Discussion or Exclusion
Storm Surge	No	Not applicable to Rancho Water.
Subsidence	Yes	While land subsidence has not been mapped in the District service area, most subsidence in California has resulted from excessive groundwater pumping.
Tornado	No	Rancho Water has experienced one documented tornado in the service area since 1950.
Tsunami	No	Not applicable to Rancho Water.
Wildfire	Yes	A large portion of the Distrit service area lies in moderate- very high fire severity zones.

4.2 CRITICAL FACILITIES AND INFRASTRUCTURES

Table 4-2

Critical Facilities Type	Number
Vail Dam/Lake	1
Wastewater Treatment Plant	1
Reservoirs (potable)	42
Reservoirs (non-potable)	17
Pump Stations (potable)	33
Pump Stations (non-potable)	7
Pressure Reducing Stations (potable)	15
Pressure Reducing Station (non-potable)	1
Lift Stations	3
Chloramination Facility	4
Production Wells	51
Monitoring Wells	77
Headquarters Facility	1
Facility Totals	253
Water/Sewer Lines - miles	1,044

4.3 HAZARD PROFILES

Drought

Description:

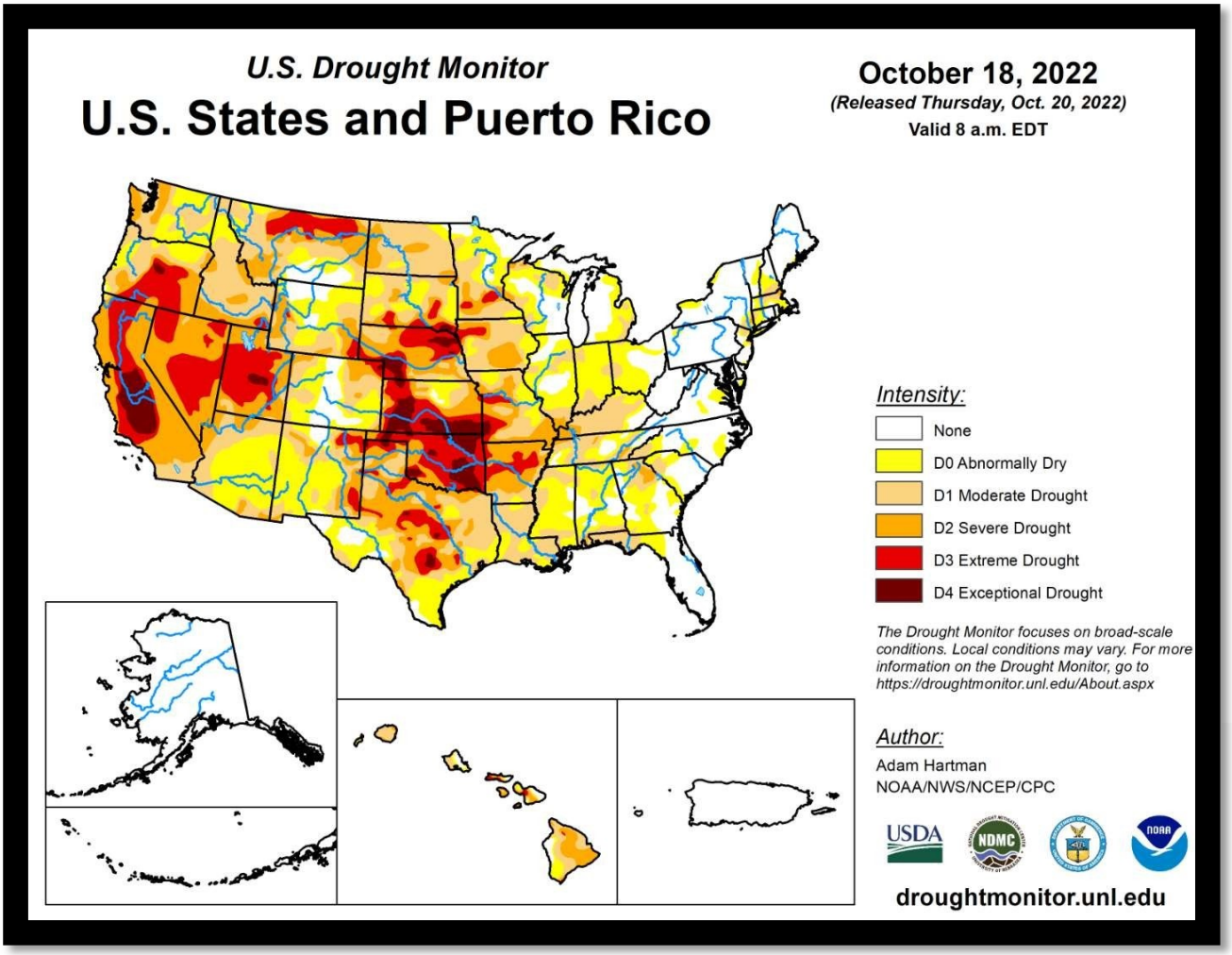
A drought is defined as a period of abnormally dry weather sufficiently long enough to cause a serious hydrological imbalance. Drought can result in significant operational impacts to water utilities, including a loss of water supply and poor source water quality.

Rancho Water's potable water supply sources include water imported through the MWD and local groundwater. Historically, imported water has supplied between 60 to 70 percent of the District's water supply, comprised of both treated and untreated water. The District artificially recharges the Pauba Valley Basin with untreated imported water for enhanced groundwater production. The annual supply capacity of the District's local groundwater sources is limited by the sustainable yield of the groundwater basin. Each year, staff and the District's consulting hydrogeologist jointly prepare an audit of groundwater resources at the conclusion of the water year (year ending September 30).

In the event that the availability of local and/or imported water supplies is constrained, the District's options include purchasing more imported water, if available, and/or implementing actions in accordance with its Water Shortage Contingency Plan.

Location/ Extent:

Impacts from a drought would typically be experienced service area wide. However, the severity or extent of a drought could regionally impact imported water sources differently than Rancho Water. Drought severity is described in the National Drought Mitigation Center's U.S. Drought Monitor Map.



In addition to loss of water supply and poor source water quality, drought can have significant secondary impacts. Drought can be a catalyst for unfavorable wildfire conditions through the creation of increased fuel sources through dry vegetation and increased tree mortality. Coupled with reduced water supply for firefighting, drought has the propensity to create larger, more severe wildfires throughout the service area.

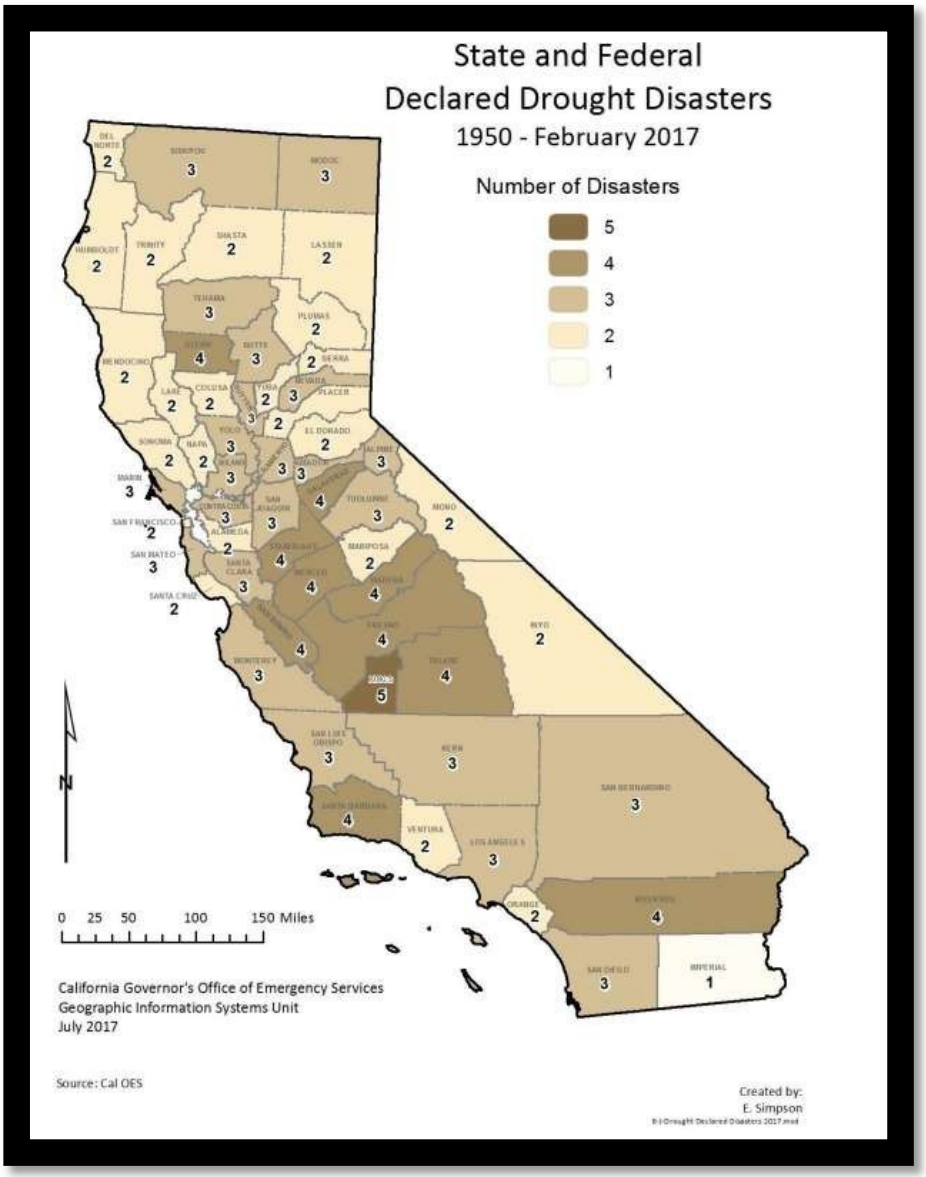
A secondary impact of drought, land subsidence, can occur through excessive groundwater pumping through wells. Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to removal or displacement of subsurface earth materials. Land subsidence due to groundwater pumping can permanently damage or collapse

underground aquifers, increase flood risk in low-lying areas, and pose hazards to buildings, infrastructure, and water storage facilities.

Previous Occurrence:

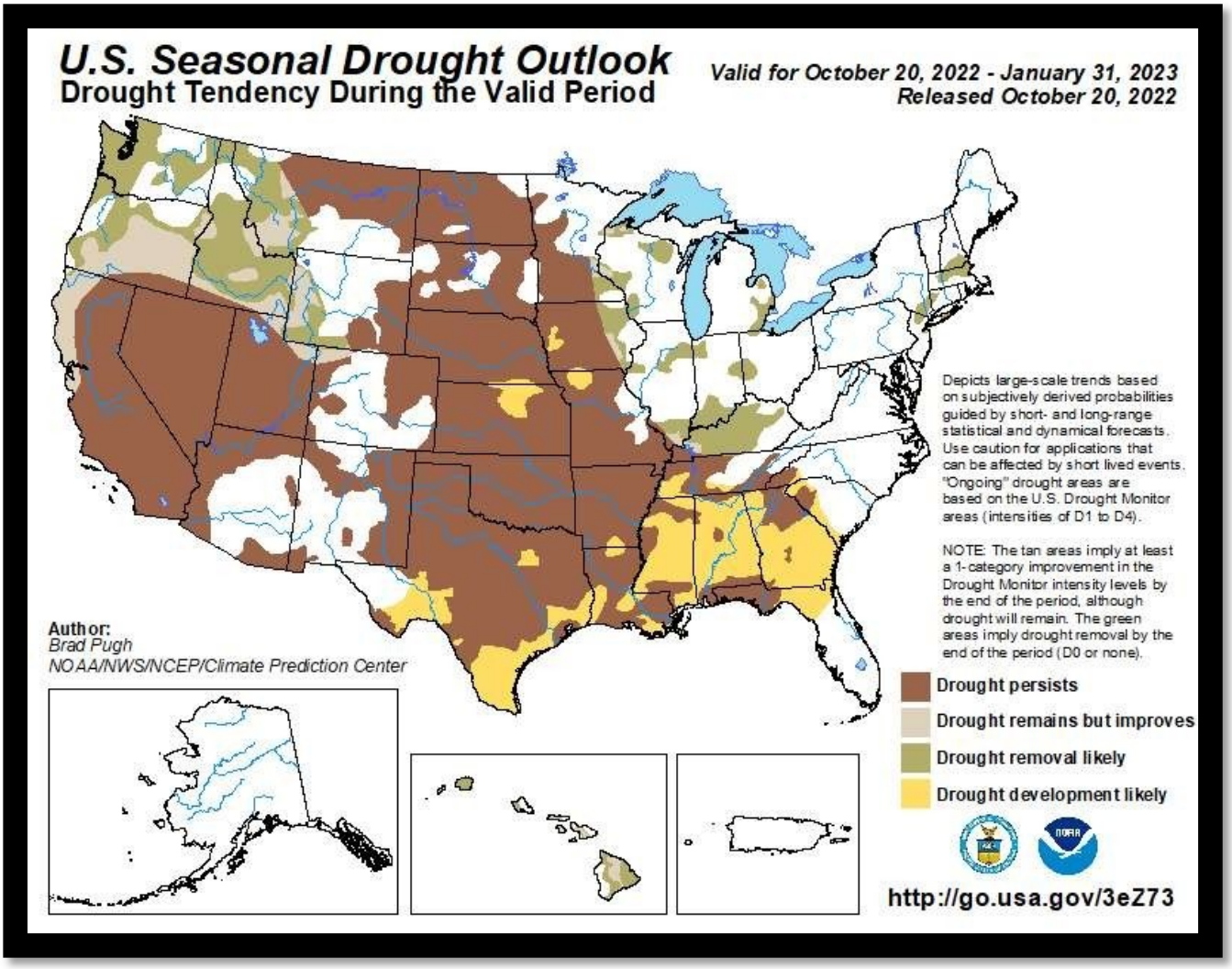
Since 1950, there have been five state and federally declared drought disasters impactingRiverside County:

- 1975-1977
- 1987-1992
- 2007-2009
- 2012-2017
- 2021-Present



Probability of Future Events:

Based on previous occurrences in the past, the probability of future drought events occurring is high. The National Oceanic and Atmospheric Administration (NOAA) U.S. Seasonal Drought Outlook predicts that ongoing drought conditions are likely to persist within the service area.



Climate Change:

According to the California State Hazard Mitigation Plan, the state is already experiencing the impacts of climate change through the intensification of natural disasters. Decreased winter precipitation, sooner than expected snowmelt runoff, and higher temperatures are climate change-related impacts influencing the severity and duration of drought within the service area. With drought conditions forecasted to persist in the future, climate change will add to the uncertainty of drought conditions and continue to challenge the District.

Flooding –

Description:

A flood is described by FEMA as general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties from:

- Overflow of inland or tidal waters
- Unusual and rapid accumulation of surface waters from any source
- Mudslides which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current
- Collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above

As applicable to the District, flooding typically occurs within the service area from an unusual and rapid accumulation of surface waters from any source. Heavy precipitation overwhelming drainage and floods channels has historically effected facilities within the service area. Climate change, El Nino and La Nina weather patterns, atmospheric rivers, and ground saturation are all factors that can contribute to flood severity and duration.

Location/ extent acceptance:

The location of flood zones within the District service area are identified with the FEMA Flood Insurance Rate Maps (FIRM). FIRM is an official map of a community on which FEMA has delineated the flood zones applicable to the community. Flood zones are geographic areas FEMA has defined according to varying levels of flood risk and are described in table 4-3. The extent of flooding is measured by the annual chance of flooding. Flood zones with a 0.2 percent (or 1 in 500) chance of annual flooding are considered moderate to low-risk areas. Flood zones with a 1 percent (or 1 in 100) chance of annual flooding are classified as high risk areas. Data from FIRM has been overlayed onto District critical asset locations to determine the applicable flood risk as referenced in tables 4-4 and 4-5. Flooding may also occur outside of FEMA designated flooding zones due to localized rain fall or infrastructure failure. Localized rainfall has the capability to expose and weaken District underground infrastructure, damage roadways providing access to facilities, and inundate the wastewater system.

Table 4-3

Moderate to Low Risk Areas (.2 Percent Chance)	
Zone	**Description**
B and X (Shaded)	Between the limits of the 100-year and 500-year Floodplain, area with a 0.2 percent (or 1 in 500 chance) annual chance of flooding. This zone is also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
C and X (unshaded)	500-year Floodplain, area of minimal flood hazard.
High Risk Areas (1 Percent Chance)	
Zone	**Description**
A	100-year Floodplain, areas with a 1 percent annual chance of flooding. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
AE	100-year Floodplain. The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones
AH	100-year Floodplain, areas with a 1 percent annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AO	100-year Floodplain, river or stream flood hazard areas, and areas with a 1 percent or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. Average flood depths derived from detailed analyses are shown within these zones.
AR	Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam).
A99	100-year Floodplain, areas with a 1 percent annual chance of flooding that will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.

Table 4-4 Moderate to Low Risk Areas	
Zone	**Asset**
SHADED X	Alvarez Pump Station
SHADED X	Butterfield Stage Pump Station
SHADED X	Well No. 102
SHADED X	Well No. 109
SHADED X	Well No. 120
SHADED X	Well No. 176
SHADED X	Well No. 232
Table 4-5 High Risk Areas	
Zone	**Asset**
A	Los Caballos Pressure Reducing Station
A	Los Caballos Pump Station
A	Lower VDC
A	Upper VDC
A	Vail Lake Pump Station
A	Well No. 118
A	Well No. 123
A	Well No. 130
A	Well No. 131
A	Well No. 132
A	Well No. 133
A	Well No. 141
A	Well No. 149
A	Well No. 152
A	Well No. 154
A	Well No. 157
A	Well No. 158
A	Well No. 161
A	Well No. 164
A	Well No. 177
A	Well No. 203
A	Well No. 233
A	Well No. 236
AE	Cal Oaks Lift Station
AE	Headquarters
AE	Joaquin Ranch Pump Station
AE	Recycled Water Storage Pond 4
AE	Well No. 118
AE	Winchester Park Lift Station
AH	Santa Rosa Water Reclamation Facility

Past Occurrences:

As stated in the Riverside County Multi-Jurisdictional LHMP, Riverside County has experienced more than 30 declared flood disasters since 1950. Since the last 2017 submission of the District LHMP, the District has been impacted by two flooding events in 2017 and 2019. In February 2019, an atmospheric river event caused at least $73 million in damages to Riverside County and $38,454 in damage to the District. A similar atmospheric river event in 2017 caused $65,704 in damages to the District after storm water infrastructure failed, damaging District assets. Table 4-6 summarizes flood damages experienced in Riverside County.

Table 4-6

Location	Date of Incident	Reported Damage	Number Injured	Incident Description
Riverside County	1/17/1993	$12,629,191	0	Flooding
Idyllwild	3/5/1995	$1,000,000	Not Avail.	Flooding caused by rains. 3,000 acres of farmland flooded. Portions of Highway 74 washed away
Mecca	3/6/1995	$1,000,000	2	Flooding caused by rains.
Riverside County	2/6/1998	$12,629,191	0	El Niño storms flooding, debris, road damage, water damage to homes.
Cherry Valley, Calimesa, Yucaipa, Oak Glen Conservation Camp, Banning	7/11 - 7/12/1999	$750,000	3	Flash flood. Camp and property damaged.
Desert Hot Springs	3/5/2000	$300,000	1	Flooding caused by rain and snow.
Moreno Valley	3/7/2000	$1,500,000	Not Avail.	Flooding caused by rain. Mudslides. Homes and property destroyed.
Eastern Riverside County	8/29/2000	Not Avail.	0	Flash flood due to severe thunderstorm, hail, heavy rain.
Eastern Riverside County	7/6/2001	$3,383,000	0	Flash flood. Road damage, farmland damage, crop damage
County Areas & Riverside City	11/24/2001	Not Avail.	Not Avail.	Flood channel blocked. Homes flooded

Location	Date of Incident	Reported Damage	Number Injured	Incident Description
Moreno Valley, Catherdral City	8/18/2003	$500,000	Not Avail.	Flash flood, Government buildings flooded
Anza, Banning	9/4/2003	$150,000	Not Avail.	Flash flood.
Corona, Palm Springs	11/12/2003	$10,000	0	Flash flood.
Mira Loma, Moreno Valley	2/2/2004	$10,000	Not Avail.	Flash flood.
Temecula, Riverside, Mira Loma	2/18/2004	$55,000	Not Avail.	Flash flood.
Mira Loma, Moreno Valley, Perris, Sun City, Lake Elsinore	10/20/2004	$500,000	0	Flash flood.
Riverside County FEMA DR - 1577	12/27/2004	Not Avail.	Not Avail.	Severe Storms, Flooding, Debris Flows and Mud Slides.
Riverside County FEMA DR - 1585	2/16/2005	Not Avail.	Not Avail.	Severe Storms, Flooding, Debris Flows and Mud Slides.
Riverside County FEMA DR - 1884	3/8/2010	Not Avail.	Not Avail.	Severe Storms, Flooding, Debris Flows and Mud Slides.
Riverside County FEMA DR - 1952	12/17/2010	Not Avail.	Not Avail.	Severe Storms, Flooding, Debris Flows and Mud Slides.
Hemet, Coachella Valley and Thousand Palms	9/7 - 9/8/2014	Not Avail.	Not Avail.	Flash flooding in Coachella Valley. Mud and water closed roads and stranded vehicles in La Quinta, Palm Desert, and Thousand Palms. Homes in La Quinta were surrounded by water. Moving water was 3 ft. deep on roads and 4 - 5ft. of standing water submerged vehicles.

Location	Date of Incident	Reported Damage	Number Injured	Incident Description
Throughout County	12/3 - 12/4/2014	Not Avail.	1	Flooding resulted, with mud, debris and water closing several roadways and stranding vehicles. Mud with debris 10 ft. high piled up on Soboba Rd. North of San Jacinto. A swift water rescue was needed.
Throughout County	7/19/2015	Not Avail.	1	Flooding in the county lead to the need for a swift water rescue, the washout of Interstate-10 near Desert Center, and neighborhood in and near Moreno Valley flooded causing damage to resident's homes and property.
Menifee	9/8/2015	Not Avail.	Not Avail.	Flooding
Temecula	1/5 - 1/7/2016	Not Avail.	Not Avail.	Flooding
Throughout County	2/27/2017	Not Avail.	1	Flooding resulted from the storm. A swift water rescue was needed in Temecula. Heavy road damage disrupted traffic.
Throughout County	2/14/2019	73,000,000	Not Avail.	Flash flooding resulted with damage to roads. High snow levels resulted in flooding in the San Bernardino Mountains. Flash flooding and debris flows occurred at and below the Holy Fire burn scar near Lake Elsinore. Highways ripped out by water and debris on both sides of Mt. San Jacinto were closed for weeks for major repairs

Probability of future occurrences/Climate Change:

Based on past occurrences and FEMA risk probability, the potential for future flooding occurrences is high. The District has experienced two declared disasters in the past five years and 37 critical assets lie in FEMA profiled flood zones. Seven critical assets are located within a 500 year flood zone and 30 are located within a 100 year flood zone.

The University of California, Los Angeles conducted research in 2020 and concluded that under a scenario of rapidly increasing greenhouse gas concentrations, extremely dry and extremely wet events become more common over the course of the century. A majority of flood damages previously experienced by the District has been a result of extreme rainfall and failed stormwater infrastructure. With climate change increasing the volatility of the dry and wet seasons, the probability for future flood occurrences from localized rainfall is high.

Earthquake

Description:

An earthquake occurs when earth's tectonic plate boundaries, faults, suddenly slip past one another releasing stored energy in the form of seismic waves. The surface where the slip occurs is called the fault plane and the location below the earth's surface where the earthquake begins is the hypocenter. As a result of an earthquake, damage to the District facilities can result from the effects of ground shaking and liquefaction.

Per the United States Geological Survey (USGS), liquefaction takes place when loosely packed, water-logged sediments at or near the ground surface lose their strength in response to strong ground shaking. Liquefaction occurring beneath buildings and other structures can cause major damage during earthquakes.

Ground shaking is a term used to describe the vibration of the ground during an earthquake. Ground shaking is caused by body waves and surface waves. As a generalization, the severity of ground shaking increases as magnitude increases and decreases as distance from the causative fault increases. District assets vibrate as a consequence of the ground shaking; damage takes place if the asset cannot withstand these vibrations.

Location/ Extent:

The California Earthquake Authority indicates that within the state there are 15,700 known faults, 500 of which are considered active. The largest fault within the District service area is the Elsinore faults.

The Elsinore Fault Zone is one of the largest and fortunately quietest faults in Southern California. The fault is approximately 180 km in length and runs primarily through the cities of Temecula, Murrieta, Lake Elsinore, and Julian. The last major rupture occurred on May 15, 1910 and was a 6.0 magnitude earthquake. The probable magnitude of a major earthquake along the Elsinore fault zone could be in the range of 6.5 to 7.5. Adjacent fault zones located near the District are the San Jacinto fault zone, the Newport-Inglewood fault zone, and the San Andreas fault zone. The San Jacinto Fault Zone is located approximately 21 miles northeast of the District and is capable of generating earthquakes in excess of 7.2 Mw. The Newport-Inglewood Fault Zone is located approximately 28 miles southwest of the District and is capable of generating earthquakes in excess of 6.9 Mw. The San Andreas Fault Zone is located approximately 38 miles northeast of the District and is considered the dominant active fault in California; this fault zone is capable of generating earthquakes in excess of 7.4 Mw.

The extent of earthquake impact is typically measured in terms of its magnitude, energy release, and shaking intensity. Three levels of measurement are primarily utilized in the United States: the Richter Scale, the Moment Magnitude Scale, and the Modified Mercalli Intensity Scale.

The Richter Scale indicates the magnitude of an earthquake as determined from the logarithm of the amplitude of waves recorded by seismographs. The Richter Scale was replaced because it worked largely for earthquakes in Southern California, and only those occurring within about 370 miles of seismometers. In addition, the scale was calculated for only one type of earthquake wave. It was replaced with the Moment Magnitude Scale, which records all the different seismic waves from an earthquake to seismographs across the world. The Richter Scale, however, is still used in forecasting future earthquakes and estimating earthquake hazards.

The Moment Magnitude Scale is the currently preferred method due to it working over a wider range of earthquake sizes and its global applicability. According to Michigan Technological University, the Moment Magnitude scale is based on the total moment release of the earthquake. Moment is a product of the distance a fault moved and the force required to move it. It is derived from modeling recordings of the earthquake at multiple stations. Moment Magnitude estimates are about the same as Richter magnitudes for small to large earthquakes.

Magnitude Level	Category
1.0-2.9	Micro
3.0-3.9	Micro
4.0-4.9	Light
5.0-5.9	Moderate
6.0-6.9	Strong
7.0-7.9	Major
8.0 or higher	Great

The Modified Mercalli scale is used in the United States to convey the intensity of an earthquake. Intensity, as described by the USGS, is the effect of an earthquake on the earth's surface. The intensity value assigned to a specific site after an earthquake has a more meaningful measure of severity than the magnitude because intensity refers to the effects experienced at that place. The lower numbers of the intensity scale generally deal with the manner in which the earthquake is felt by people. The higher numbers of the scale are based on observed structural damage.

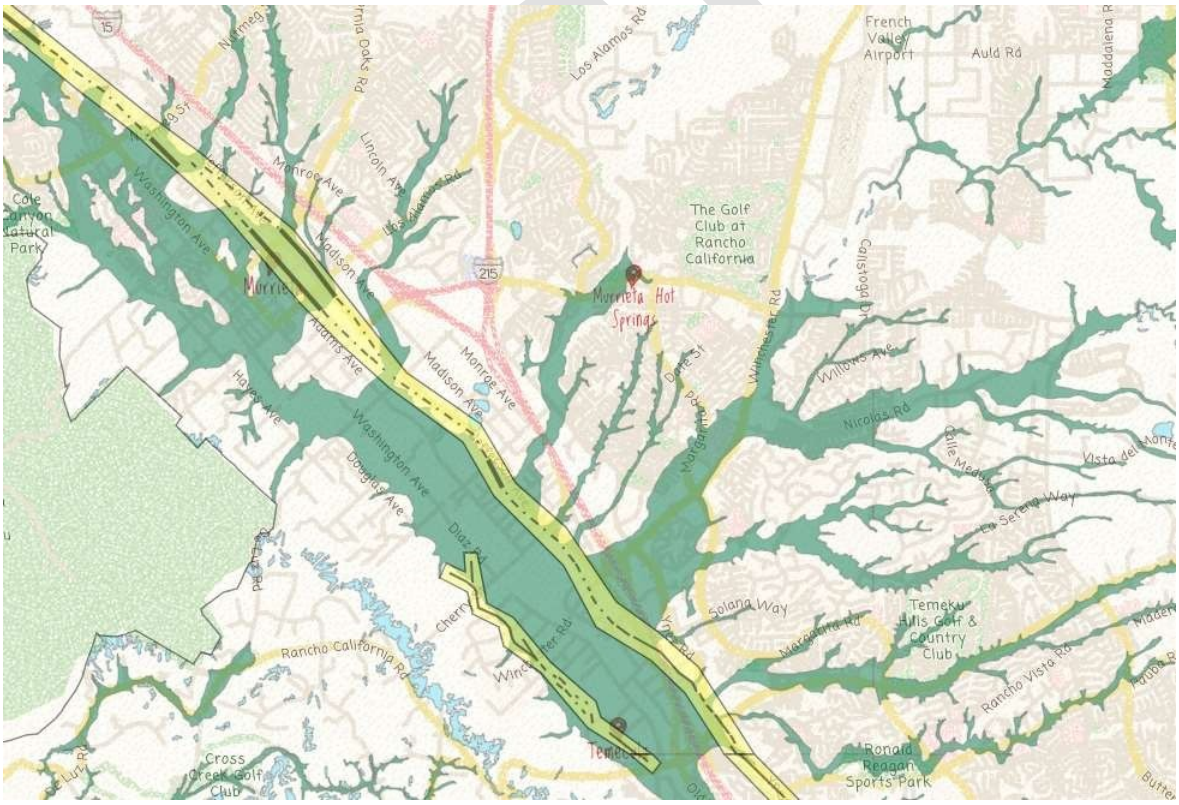
Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.

Intensity	Shaking	Description/Damage
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

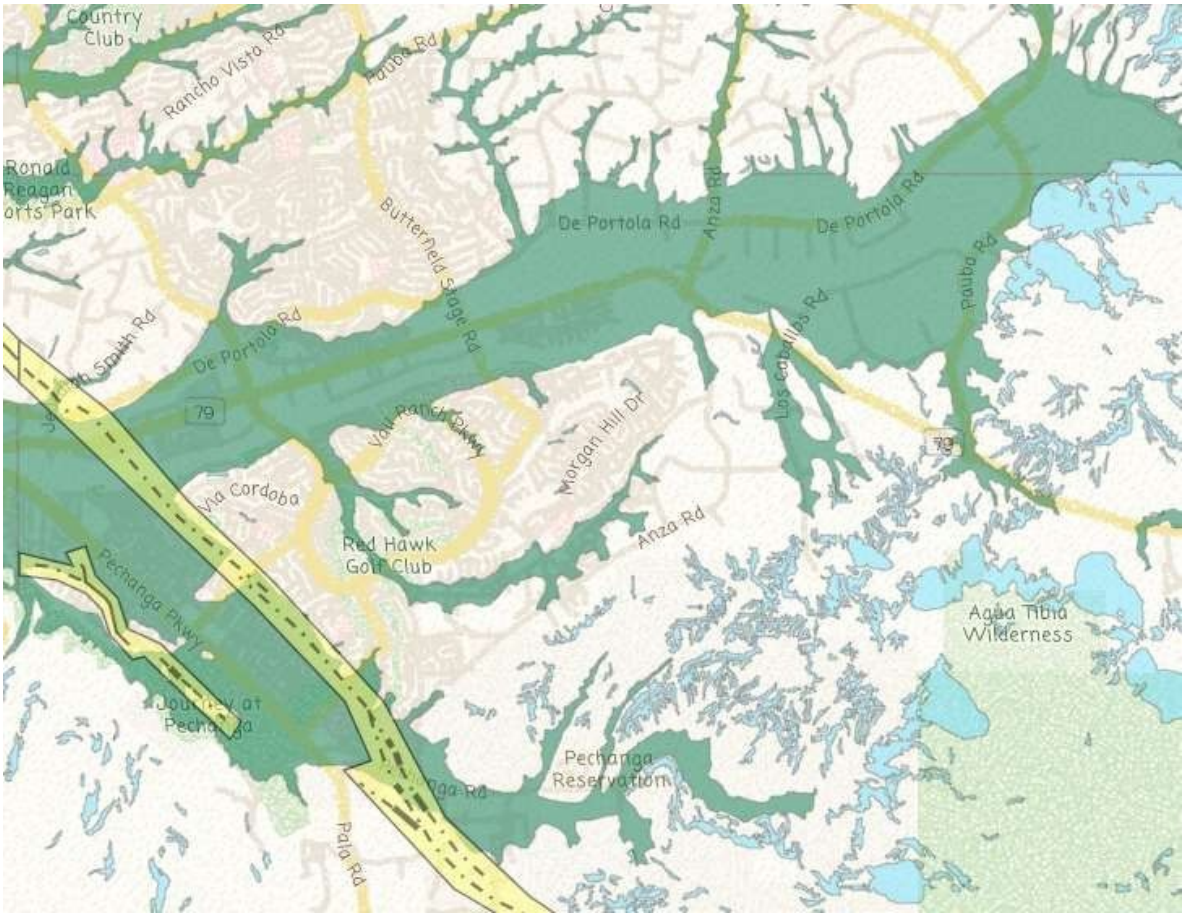
The District has multiple facilities located within or adjacent to Southern California fault lines. Earthquake related ground shaking has the potential to cause significant damage to pipelines which would likely result in service disruption. Further as the District currently imports approximately 60 percent of its water, earthquakes outside the regional have the potential to impact the ability to import water.

Liquefaction ground failure has historically been associated with major earthquake related damage. The 1971 San Fernando and 1994 Northridge earthquakes caused significant liquefaction damage to roads, utility pipelines, and buildings through liquefaction-induced ground displacement. Facilities most susceptible to liquefaction damage are within 40 ft of the ground surface. As the District owns and operates facilities within this range including but not limited to pipelines, treatment facilities, well sites, and pumpstations, the District is susceptible to damages from liquefaction. Within the service area, there are two primary Earthquake Zones of Required Investigation (EZRI) with liquefaction hazards per the California Geological Survey (CGS), the Murrieta Quadrangle and the Pechanga Quadrangle. The Seismic Hazards Mapping Act of 1990 directs state geologists to prepare maps that delineate seismic hazard zones within a EZRI for the purpose of reducing the threat to public safety and minimize the loss of life and property.

About 23 square kilometers (9 square miles) of land in the Murrieta Quadrangle has been designated EZRI for liquefaction hazard, encompassing much of the Murrieta-Temecula Valley, Geotechnical tests conducted indicate that these soils generally have a moderate to high likelihood of liquefying, given the level of strong ground motions this region could be subjected to.



About 23 square kilometers (9 square miles) of land in the evaluated area of the Pechanga Quadrangle has been designated EZRI for liquefaction hazard, encompassing most of the Pauba Valley and Wolf Valley. Geotechnical tests indicate that these soils generally have a moderate to high likelihood of liquefying, given the region is subject to strong ground motion.



Past Occurrences:

Throughout California, multiple small earthquakes are recorded on a daily basis by research centers. The most recent significant earthquake within Riverside County occurred on January 13, 2022 in Anza, CA and had a magnitude of 3.9.

Year	Richter Scale Magnitude	Description
1812	7.0	Occurred on the southern section of the San Andreas fault near Wrightwood.
1857	7.9	Occurred 60 miles northwest of Fort Tejon and ruptured 225 miles of the San Andreas fault.
1890	6.5	Occurred in the "San Jacinto or Elsinore Fault region" on the Rockhorse Truck Trail, north of the Borrego Valley Airport.
1890	6.5	Occurred in the same region as the 1890 earthquake.
1899	6.4	San Jacinto earthquake destroys San Jacinto and Hemet.
1910	5.0	Occurred on the Elsinore fault northwest of the City of Lake Elsinore.
1918	6.9	San Jacinto earthquake strikes the same area that was damaged by an earthquake 19 years earlier.
1923	6.3	North San Jacinto Fault earthquake damaged the San Bernardino and Redlands area. This is the last known time that this fault, which runs under the I-215 / I-10 interchange, ruptured in this area.
1937	6.0	Terwilliger Valley earthquake was in the same general area as the 1890 earthquake.
1942	6.3	Fish Creek Mountains earthquake was south of the Ocotillo airport.
1954	6.2	Arroyo Salada earthquake was west of the Salton Sea.
1968	6.5	Borrego Mountain Earthquake was northeast of Ocotillo Wells.
1987	6.6	Superstition Hills earthquake near the Salton Sea.
1992	7.2	Occurred near Landers, California and caused the rupture of five different faults. Those faults were: Johnson Valley, Landers, Homestead Valley, Emerson, and Camp Rock.
1992	7.3	Occurred 3 hours after the Landers Earthquake with an epicenter near Big Bear, California.
1994	6.8	Northridge Earthquake
1999	7.4	Hector Mine Earthquake
2010	5.4	Borrego Springs earthquake believed by seismologists to have been possibly triggered by the strong earthquake which occurred near Calexico in 2010.

Future Occurrences:

The likelihood of a future earthquake is high. The California Earthquake Authority states a 75 percent probability of one or more magnitude 7.0 earthquakes striking California based on a 30-year period, beginning in 2014.

Wildland Fire

Description:

Wildland fire is a broad definition describing non-structural fires involving vegetation and natural fuels. The definition encompasses the definitions of wildfire and prescribed burn. A wildfire is an unplanned fire caused by natural sources, such as lightening, or man-made sources such as arson. A prescribed burn is a planned fire ignited by authorities to accomplish an objective, such as reducing available fuels within an area. California has an extensive history of wildland fires, with two declared disasters occurring within or near the District boundaries within the past five years.

Location/Extent:

The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These designations, referred to as Fire Hazard Severity Zones (FHSZ), mandate how people construct buildings and protect property to reduce risk associated with wildland fires.

Within the District service area, multiple locations have been identified very high, high, and moderate by Cal FIRE. Multiple District critical assets are located within these zones and are subject to damage in the event a wildland fire occurs. Impacts experienced by the District can be but are not limited to power outages and damaged infrastructure.

District Assets within Fire Zones	
Fire Zone Severity	**Asset**
Very High	Ace Bowen Pump Station 1
Very High	Ace Bowen Pump Station 2
Very High	Ace Bowen Pump Station 3
Very High	Ace Bowen Pump Station 4
Very High	Ace Bowen Reservoir 1
Very High	Ace Bowen Reservoir 2
Very High	Alvares Reservoir
Very High	Avenida Escala Pump Station
Very High	Avocado Mesa Pressure Reducing Station
Very High	Baldaray Pump Station
Very High	Baldaray Reservoir
Very High	Bear Creek Pressure Reducing Station
Very High	Bear Creek Pump Station
Very High	Bear Creek Recycled Reservoir
Very High	Bear Creek Reservoir
Very High	Calaveras Reservoir
Very High	Calle Breve Pressure Reducing Station
Very High	Calle Breve Pump Station
Very High	Calle Paramo Reservoir

District Assets within Fire Zones	
Fire Zone Severity	**Asset**
Very High	Carancho West Pressure Reducing Station
Very High	Chaparral Pressure Reducing Station
Very High	Cole Creek Recycled Reservoir
Very High	Cole Creek Recycled Storage Pond
Very High	De Luz Pump Station
Very High	De Luz Reservoir 1
Very High	De Luz Reservoir 2
Very High	De Portola Pump Station
Very High	De Portola Reservoir 1
Very High	De Portola Reservoir 2
Very High	East Bluff Pump Station
Very High	El Chimisal Recycled Reservoir
Very High	El Chimisal Reservoir 1
Very High	El Chimisal Reservoir 2
Very High	El Chimisal Reservoir 3
Very High	Freeman Pump Station
Very High	Freeman Reservoir 1
Very High	Freeman Reservoir 2
Very High	Glenoaks Reservoir 1
Very High	Glenoaks Reservoir 2
Very High	La Cresta Reservoir
Very High	Los Caballos Pressure Reducing Station
Very High	Los Caballos Pump Station
Very High	Parado Del Sol Pressure Reducing Station
Very High	Paseo Chaparro Pressure Reducing Station
Very High	Recycled Water Storage Pond 1
Very High	Recycled Water Storage Pond 2
Very High	Recycled Water Storage Pond 3
Very High	Recycled Water Storage Pond 4
Very High	Recycled Water Storage Pond 5
Very High	Redonda Mesa Pump Station
Very High	Redonda Mesa Reservoir
Very High	Sandia Creek Pressure Reducing Station
Very High	Senga Doherty Pump Station
Very High	Senga Doherty Reservoir
Very High	Tenaja Pump Station
Very High	Tenaja Reservoir
Very High	Upper VDC Facility
Very High	Vail Campground Reservoir
Very High	Vail Lake Pump Station
Very High	Via Santa Rosa Pump Station
Very High	Via Vista Pressure Reducing Station
Very High	Vista Del Mar Pressure Reducing Station
Very High	Well 152
Very High	Well 153

District Assets within Fire Zones	
Fire Zone Severity	**Asset**
Very High	Well 154
Very High	Well 157
Very High	Well 158
Very High	Well 161
High	Anza Pump Station
High	Anza Reservoir 1
High	Anza Reservoir 2
High	Avocado Mesa Pump Station
High	Avocado Mesa Reservoir
High	Calle Contento Reservoir 1
High	Calle Contento Reservoir 2
High	Lower VDC Facility
High	Tucalota Reservoir
High	Well 123
High	Well 130
High	Well 131
High	Well 133
High	Well 149
High	Well 151
High	Well 176
High	Well 177
High	Well 232
Moderate	Buck Mesa Pump Station
Moderate	Buck Mesa Reservoir 1
Moderate	Buck Mesa Reservoir 2
Moderate	Carancho Pressure Reducing Station
Moderate	Carancho Pump Station
Moderate	De Anza Pressure Reducing Station
Moderate	De Luz Pressure Reducing Station
Moderate	El Prado Reservoir 1
Moderate	El Prado Reservoir 2
Moderate	Via Vaquero Pump Station
Moderate	Via Vaquero Reservoir
Moderate	Well 113
Moderate	Well 132
Moderate	Well 203
Moderate	Well 233
Moderate	Well 236

Past Occurrences:

There is a long history of wildfires in Riverside County. The table below represents wildland fires of 100 acres or greater from 2017-2022. Within the past five years, two of such fires have occurred within the District service area and are highlighted in the table.

Name	Date	Acres Claimed
Opera Fire	4/30/2017	1350
Canyon Fire	9/25/2017	2662
Wildomar Fire	10/26/2017	866
Patterson Fire	5/17/2018	1261
Cranston Fire	7/25/2018	13139
Holy Fire	8/6/2018	23136
Tenaja Fire	9/4/2019	1926
Horseshoe Fire	9/14/2019	503
Sandalwood Fire	10/10/2019	1011
Reche Fire	10/10/2019	350
Hill Fire	10/30/2019	600
Apple Fire	8/1/2020	33424
Candy Fire	9/29/2020	454
Silverado Fire	10/26/2020	12466
Blue Ridge Fire	10/26/2020	13964
Bond Fire	12/2/2020	6686
Sanderson Fire	12/13/2020	1954
Lake Fire	5/24/2021	115
Flats Fire	6/13/2021	341
Stowe Fire	6/28/2021	122
Rock Fire	8/24/2021	295
South Fire	8/25/2021	680
Chapparal Fire	8/28/2021	1427
Jim Fire	3/2/2022	553

Future Occurrences/ Climate Change:

The likelihood of another wildland fire occurring within the District service area is high. Moderate-Very High FHSZ populate a large portion of the District service area with an excess of 102 assets being located within these zones. Additionally, seasonal Santa Ana winds occur within the District, triggering the Nation Weather Service to issue red flag warnings and fire weather watch alerts throughout the District.

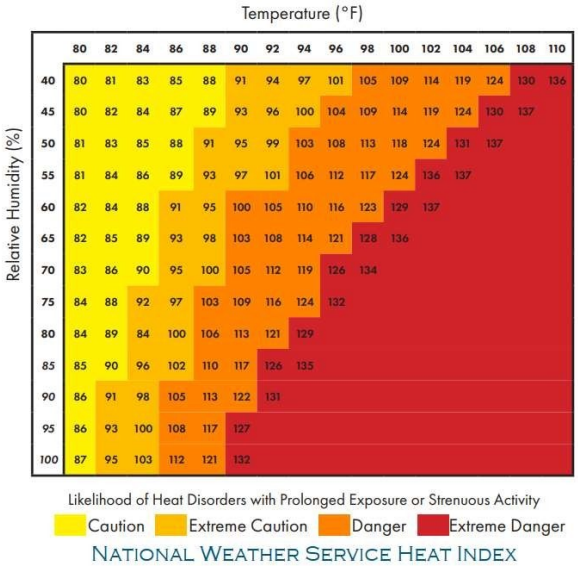
According to the NOAA, climate change continues to create warmer and drier conditions causing a more active and extended fire season. Wildfires require several factors to align such as a lack of moisture in fuels, temperature, and humidity; all these factors have strong direct or indirect ties to climate change.

<u>Extreme Weather</u>

Description:

Extreme weather is broadly defined as severe weather that poses a threat to life or property. Three types of extreme weather typically impact the District: excessive heat, windstorms, and heavy rainfall.

The definition of excessive heat varies by government authority, but is loosely defined as a combination of hot temperatures and high humidity that can create a situation where heat related illness is possible. The National Weather Service (NWS) describes extreme heat using the Heat Index to correlate temperature and relative humidity to the likelihood of heat related illnesses. The California Occupational Safety and Health Administration (CalOSHA) further defines high heat as temperatures equal or exceeding 95 degrees Fahrenheit. Excessive heat is the leading cause of weather-related fatalities within the United States.



Windstorms or damaging winds are described by the NWS as 40-50mph straight-line winds capable of causing isolated wind damages. Windstorms can occur during severe thunderstorms, strong weather systems, or can flow down from a mountain. Windstorms are capable of damaging District communication equipment, causing localized power outages, and exacerbating wildland fires within the service area.

Heavy rainfall

While there is no set definition for heavy rainfall, it can be generally described as more rainfall than normal, typically observed during a single storm event such as an atmospheric river. Atmospheric rivers or a "pineapple express" weather pattern are narrow regions in the atmosphere that transport moisture from the tropics to northern latitudes. In the District's service area, atmospheric rivers have been responsible for multiple heavy rainfall events and subsequent flooding damages. Heavy rainfall events have the capability to inundate and damage storm water infrastructure, which in turn can expose and weaken District underground infrastructure. These events have also historically damaged access roads and have flooded aboveground District structures.

Location/ Extent:

It can be assumed that an excessive heat, windstorm, or heavy rainfall event can expose some or all of the District to these hazards. Data currently does not depict geographical locations within the District whereas one area would be more vulnerable to these types of hazards. However, certain areas within the District may be more exposed to specific hazards due to their geographic location or topography. For example, locations adjacent to storm water infrastructure may experience damage from heavy rain fall events while assets located within the Santa Ana mountains may experience higher sustained winds throughout canyon areas.

Temperatures throughout the District's service area are high, especially during summer months. Temperature in excess of 90 degrees Fahrenheit can be observed from March to November, with the highest summer temperatures being categorized as extreme danger according to the NWS heat index. In 2006, a California heat wave claimed 140 lives in the state between July 15 and August 1.

The most common occurrence of wind storms takes place between October and February, when Santa Ana winds take place. Wind speeds are typically north to east at 35 knots through and below passes and canyons with gusts to 50 knots. Stronger Santa Ana winds can have gusts greater than 60 knots over widespread areas and gusts greater than 100 knots in favored areas. While wind storms typically do not impact the District's ability to provide service, wind storms can significantly impact electrical utilities. During wind storms the District's electrical utility provider, Southern California Edison (SCE), monitors conditions and will proactively deenergize power grids through its Public Safety Power Shutoff (PSPS) program. During such PSPS events, the District is forced to rely on alternate sources of energy such as natural gas or diesel powered generators to provide service. Windstorms also have the ability to exacerbate wildland fire conditions.

Recently, heavy rain events have occurred throughout the District's service area. On January 19, 2017, 2 to 7 inches of rain fell throughout the service area, inflicting approximately $157,000 in damages to buildings and infrastructure. Later, on February 14, 2019 an atmospheric river precipitated 6 to 10 inches of rain on the District, causing an estimated $67,000 in damage.

Past Occurrences:

Excessive Heat

Since 2017, there have been 10 excessive heat events in Southern California recorded as significant weather events by the NWS. In the District service area, seasonal temperatures annually record as extreme danger according to the heat index scale.

Windstorm

Since 2017, there have been 21 windstorm events in Southern California recorded as significant weather events by the NWS. The District annually experiences Santa Ana winds from October to February which trigger PSPS occurrences throughout the service area.

Heavy Rain

Since 2017, there have been 23 heavy rainfall events in Southern California recorded as significant weather events by the NWS. The last heavy rainfall events damaging District assets occurred January 2017 and February 2019.

Future Probability/ Climate Change:

Due to the annual excessive heat events and windstorms triggering PSPS within the District's service area, the future probability of both events is high. Based on previous historical occurrences, the probability of heavy rain events is medium, as drought conditions are likely to persist. However, as discussed under the flood hazard profile, climate change will continue to effect the volatility of dry and wet events.

<u>Dam Failure</u>

Description:

Dam failure is the uncontrolled release of impounded water resulting in downstream flooding. Dams can fail for a number of reasons, including overtopping caused by floods, earthquakes, acts of sabotage, or structural failure of materials used in construction. Dams present risks, but they also provide many benefits, including irrigation, flood control, and recreation.

Within California, dams are regulated by the Department of Water Resources, Division of Safety of Dams (DSOD). DSOD regulatory oversight includes:

- Reviewing and approving dam enlargements, repairs, alterations, and removals.
- Performing independent analyses to understand dam and appurtenant structures performance.
- Overseeing construction to ensure work is being done in accordance with the approved plans and specifications.
- Inspecting each dam on an annual basis.
- Periodically reviewing the stability of dams and their major appurtenances.
- Assigning each jurisdictional dam a downstream hazard classification.

The downstream hazard is based solely on potential downstream impacts to life and property should the dam fail when operating with a full reservoir. This hazard is not related to the condition of the dam or its appurtenant structures. The definitions for downstream hazard are borrowed from the Federal Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures. FEMA categorizes the downstream hazard potential into three categories in increasing severity: Low, Significant, and High. DSOD adds a fourth category of "Extremely High."

Downstream Hazard Potential Classification	Potential Downstream Impacts to Life and Property
Low	No probable loss of human life and low economic and environmental losses. Losses are expected to be principally limited to the owner's property.
Significant	No probable loss of human life but can cause economic loss, environmental damage, impacts to critical facilities, or other significant impacts.
High	Expected to cause loss of at least one human life.
Extremely High	Expected to cause considerable loss of human life or would result in an inundation area with a population of 1,000 or more.

DSOD uses the United States Army Corps of Engineer's National Inventory of dams' condition assessment rating definitions in assigning condition assessments. A dam safety deficiency is defined as a load capacity limit or other issue that can result in a failure of the dam or appurtenant structure. It is a characteristic or condition that does not meet the applicable minimum regulatory criteria.

Normal operations are defined as loading on the dam resulting from day-to-day pool operations to achieve authorized purposes in accordance with minimum state or federal regulatory criteria.

Ratings	Definitions from the National Inventory of Dams
Satisfactory	No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions (static, hydrologic, seismic) in accordance with the minimum applicable state or federal regulatory criteria or tolerable risk guidelines.
Fair	No existing dam safety deficiencies are recognized for normal operating conditions. Rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. Risk may be in the range to take further action. Note: Rare or extreme event is defined by the regulatory agency based on their minimum applicable state or federal criteria.
Poor	A dam safety deficiency is recognized for normal operating conditions which may realistically occur. Remedial action is necessary. Poor may also be used when uncertainties exist as to critical analysis parameters which identify a potential dam safety deficiency. Investigations and studies are necessary.
Unsatisfactory	A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.
Not Rated	The dam has not been inspected, is not under state jurisdiction, or has been inspected but, for whatever reason, has not been rated.

Location/ Extent:

The District currently owns and operates Vail Dam in the vicinity of Temecula, CA. Vail Dam is a concrete arch dam built in 1949 classified as having an extremely high downstream hazard and a fair condition assessment. Dam inundation maps have been prepared, but are available only to authorized agencies for review due to their confidential classification.

Past Occurrences:

Historically, neither the District or Riverside County have experienced any significant dam failures. In February 1980, a series of storms swept through the south and central coastal areas, bringing record amounts of precipitation. Every dam in San Diego County, with the exception of Lake Henshaw, spilled. For the first time since construction, Vail dam spilled water through its emergency spillway, discharging approximately 4,834 AF of water. As a result of the discharge, a training wall was installed to guide the flow of discharged water.

From January 6 to February 28,1993, a series of storms produced 20 to 40 inches of rain over much of the southern California coastal and mountain areas. Vail dam discharged for the second time, releasing approximately 11,726 AF of water.

Future Occurrences/ Climate Change:

The likelihood of a future dam failure is low. There have been no dam failures within the area and Vail dam is currently in the process of being replaced with a new dam.

Climate change does not have a direct impact on dam failure, but can indirectly affect dams. Climate change is forecasted to increase the volatility of future heavy precipitation events in the future and these types of events have historically threatened dams. In 2017, the Oroville dam crisis evacuated 188,000 people after heavy rains damaged the primary and emergency spillways.

Landslide

Description:

A landslide is defined as the movement of a mass of rock, debris, or earth down a slope. Landslides are a type of "mass wasting," which denotes any down-slope movement of soil and rock under the direct influence of gravity. The term "landslide" encompasses five modes of slope movement: falls, topples, slides, spreads, and flows. These are further subdivided by the type of geologic material (bedrock, debris, or earth). Debris flows (commonly referred to as mudslides) and rock falls are examples of common landslide types.

Almost every landslide has multiple causes. Slope movement occurs when forces acting down-slope (mainly due to gravity) exceed the strength of the earth materials that compose the slope. Causes include factors that increase the effects of down-slope forces and factors that contribute to low or reduced strength. Landslides can be initiated in slopes already on the verge of movement by rainfall, snowmelt, changes in water level, stream erosion, changes in ground water, earthquakes, volcanic activity, disturbance by human activities, or any combination of these factors.

Location/Extent:

Following the 1982 El Nino storms in the San Francisco Bay area, the Landslide Hazard Mapping Act mandated new maps to show landslides and landslide hazards. Landslide Hazard Identification Maps were prepared by the CGS for use by local government planners.

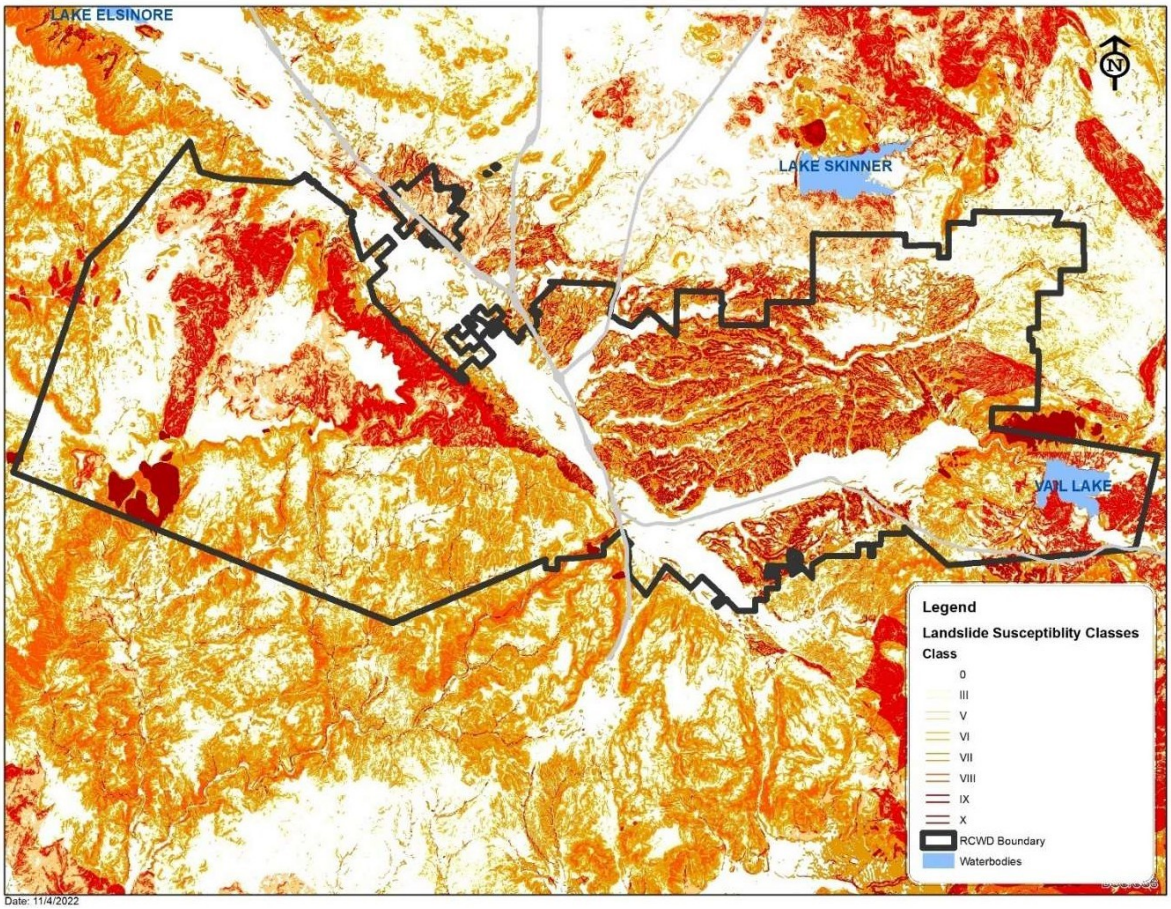
The Susceptibility to Deep-Seated Landslides map covers the entire state of California and was originally published in May 2011 by the CGS. It made use of several data layers of varying scales and formats, such as Landslide Inventory, Geology, Rock Strength, and Slope. For the statewide analysis of landslide susceptibility, rock strength and slope data layers were used to create classes of landslide susceptibility (0 to 10, low to high). These classes express the generalization that on very low slopes, landslide susceptibility is low even in weak materials, and that landslide susceptibility increases with slope and in weak rocks.

Within the District's service area, 66 assets are located in class 3 landslide susceptibility or higher. Landslide susceptibility is highest concentrated on the western portion of the service area in the Santa Ana mountains, but can be found throughout the District. Wildland fires also have the ability to increase the vulnerability

ROCK STRENGTH

SLOPE CLASS (Low → High) \ ROCK STRENGTH (High → Low)		
0	0	0
0	V	VII
0	V	VII
III	VIII	IX
VI	IX	X
VII	IX	X
VIII	IX	X
VIII	IX	X

LANDSLIDE SUSCEPTIBILITY CLASSES



Landslides affect assets, whether they are directly on or near a landslide. Structures built on unstable slopes may experience partial damage to complete destruction as landslides destabilize or destroy foundations, walls, surrounding property, and above-ground and underground utilities.

Fast-moving landslides such as debris flows are the most destructive type of landslide to structures, as they often occur without precursors or warnings, move too quickly for any mitigation measures to be enacted, and, due to velocity and material, are often very powerful and destructive. Fast-moving landslides can completely destroy a structure, whereas a slower moving landslide may only slightly damage it, and its slow pace may allow mitigation measures to be enacted. However, left unchecked, even slow landslides can completely destroy structures over time. Debris avalanches and lahars in steep areas can quickly destroy or damage the structures and lifelines of cities, towns, and (or) neighborhoods due to the fact that they are an extremely fast-moving, powerful force. The nature of landslide movement and the fact that they may continue moving after days, weeks, or months preclude rebuilding on the affected area, unless mitigative measures are taken; even then, such efforts are not always a guarantee of stability.

Past Occurrences:



Historically, the District experienced minor damages from mudflows triggered by heavy precipitation. In 2017 and 2019, a heavy precipitation repeatedly impacts the Los Caballos Pump Station, covering the facility with 6 to 12 feet of debris. In 2005, a five-day heavy precipitation event triggered mudslides, closing the Interstate 15 freeway. While not a direct impact to District assets, the closure of Interstate 15 indirectly impacts response and travel times throughout the service area.

Regionally, wildland fires in Southern California have catalyzed landslide and mudslide conditions. After the Holy Fire in August and September of 2018, an adjacent water utility, Elsinore Valley Municipal Water District, was impacted by mudslides. In early October 2018, storms over the Holy Fire burn scar prompted voluntary evacuations and caused debris flows throughout Lake Elsinore.

In January 2018, the Thomas Fire burn scar received a heavy precipitation event triggering catastrophic mudslides, claiming the lives of 23 people and damaging water utility infrastructure.

Probability of Future Occurrences/ Climate Change:

The probability of future landslides and mudslides is medium. While the District has routinely experienced impacts from mudslides, they have had minor to indirect impacts on District assets. However, the future probability of wildland fires is high and this event can directly contribute to landslide and mudslide conditions throughout the service area. Likewise, climate change may not directly influence landslides but can intensify and extend wildland fire conditions.

Geological Hazards

Description:

Expansive soils have a significant amount of clay particles that can shrink or swell. The change in volume exerts stress on buildings and other loads placed on these soils. Expansive soils can be widely dispersed and they can occur in hillside areas as well as low-lying alluvial basins. Although expansive soils are now routinely alleviated by following the Riverside County Building Code, problems related to past inadequate grading or site preparation practices can appear. Expansive soils are not the only cause of structural distress in existing structures. Poor compaction and construction practices, settlement and landslides can cause similar damage, but require different mediation efforts. Once expansion has been verified as the source of the problem, mitigation can be achieved through reinforcement of the existing foundation or through the excavation and removal of the expansive soils in the affected area.

Ground subsidence is typically a gradual settling or sinking of the ground surface. Subsidence can range from small or local collapses to broad regional lowering of the earth's surface. While subsidence typically occurs throughout a susceptible valley, additional displacement and fissures occur at or near the valley margin. Susceptible valleys are those predominantly filled with unconsolidated sand and silty sand that includes thin layers of silt and clayey silt.

The causes of subsidence are as diverse as the forms of failure. They include dewatering of peat or organic soils, dissolution in limestone aquifers, first-time wetting of moisture-deficient, low-density soils (hydrocompaction), natural compaction, liquefaction, crustal deformation, subterranean mining and withdrawal of fluids (groundwater, petroleum, geothermal, etc.). Most of the damaging types of subsidence are induced by the extraction of oil, gas, or groundwater from below the ground surface or the organic decomposition of peat deposits, with a resultant loss in volume. Ground subsidence can also occur as a response to natural forces, such as earthquake movements and the evolution of a sedimentary basin as it folds and subsides.

Location/ Extent:

Within the District's service area, limited mapping has been done on expansive soils. Soils containing expansive clay do exist throughout the District and can cause damages if left unmitigated. With a destabilized foundation, expansive soils can inflict small cosmetic damages or large significant damages to buildings and infrastructure. If identified as the source of the problem early, expansive soils can be successfully mitigated.

Currently there are no mapped areas of land subsidence within the District's service area. Ground subsidence can disrupt surface drainage, reduce aquifer system storage, form earth fissures and damage wells, buildings, roads, and utility infrastructure. Regional subsidence generally damages structures that are sensitive to slight changes in elevations, such as canals, sewers, and drainages. In Riverside County, risk of damage or harm due to regional subsidence is greatest at valley margins. Documented land subsidence has been mapped within three miles of the District in Lake Elsinore. And the District continues to closely manage its largest potential source of land subsidence, groundwater pumping.

Past Occurrences:

There have been no documented cases of land subsidence or expansive soil damages within the District service area.

Future Occurrences/ Climate Change:

The future likelihood of geological hazards is low. There have been no documented cases within the District; however, instances of land subsidence have occurred just outside of the service area. Climate change has no direct impact on geological hazards, but can influence land subsidence. If drought conditions persist as predicted, increase pressure will be placed on groundwater recharging and withdrawal. A mismanaged or understudied aquifer could lead to groundwater overdraw and subsequent land subsidence.

Public Health Emergency

Description:

A public health emergency is described as a localized or pandemic outbreak of a contagious disease. A pandemic is defined as an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting many people. Outbreaks consisting of viruses and bacteria all pose a threat to human health. Globalization and the advent of more efficient and economical means of travel are factors contributing to a growing number of disease vectors carrying pathogens around the world with the potential to affect humans and other species.

Location/Extent:

Whether a localized event or widespread outbreak, public health emergencies have the ability to impact all employees within the District. In 2009 and 2019, the novel viruses H1N1 and COVID-19, originated outside of the United States, and eventually spread throughout the District's serviced populations.

Since 1900, there have been four influenza pandemics that killed approximately 600,000 people in the United States. In 2009 the H1N1 flu was first identified in Imperial and San Diego counties, killing more than 550 Californians, sent thousands more to hospitals, caused widespread fear and anxiety and the declaration of a public health emergency. The COVID-19 Pandemic of 2019-2020 demonstrated how an easily transmissible disease could affect the population and economy of the areas served by. Within Riverside County, approximately 6,692 deaths were associated with COVID-19 in addition to the plethora of economic impacts such as job loss, supply chain shortages, and lockdowns.

Past Occurrences:

Since 2009, there have been two significant pandemic events, H1N1 and COVID-19. According to the California Center for Infectious Diseases, the H1N1 flu (2009 H1N1 influenza virus) is a type of influenza virus that causes respiratory disease that can spread between people. While most people who have been sick have recovered without needing medical treatment, hospitalizations, and deaths from infection with this virus has occurred. H1N1 killed approximately 550 Californians and spread globally from 2008 to 2009.

In 2019, the novel virus COVID-19 originated in China and spread globally. Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus experience mild to moderate respiratory illness and recover without requiring special treatment. However, some become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. Since its initial spread in 2019, five variants of concern have circulated globally and continue to impact the United States.

Probability of Future Occurrences:

The probability of future public health emergencies is high. Currently, COVID-19 is still present and continues to impact agencies through operational readiness issues and health impacts to staff. Additionally, there are new occurrences of flu outbreaks every year with some of them rising to wide-spread levels.

4.4 TABLE REPLACEMENT VALUES

Name of Asset	Replacement Value ($)	Occupancy/ Capacity #	Hazard Specific Information
Vail Dam & Lake	95,000,000	n/a	Built 1948, Concrete, 138 Feet High
Wastewater Treatment Plant	47,650,869	12	Buildings/Equipment
Reservoirs	123,000,000	n/a	Steel/Concrete
Pump Stations	20,646,598	n/a	Buildings/Equipment
Lift Stations	2,336,245	n/a	Buildings/Equipment
Chlorination Facility	3,499,035	n/a	Buildings/Equipment
Water Wells	6,326,792	n/a	Buildings/Equipment
Headquarters Facility	19,005,908	138	Buildings/Equipment
Water/Sewer Lines - miles	Unknown	1,017 miles	Pipeline
Estimated Total	252,000,000		

4.5 IDENTIFICATION OF RISKS AND VULNERABILITIES

Hazard Prioritization

The LHMP planning team identified and prioritized hazards based on the following criteria from FEMA guidance. Each criteria was ranked by members of the LHMP planning team by assigning a 1-4 value with one being the lowest and four being highest. Final scores were multiplied by weighted factors based on importance or significance.

- Probability (50 percent weighted score)
- Location (20 percent weighted score)
- Primary Impact (17.5 percent weighted score)
- Secondary impact (12.5 percent weighted score)

To enhance collaboration and discussion regarding hazard ranking the LHMP Project Management Team facilitated a survey, allowing each LHMP Planning Team member to individually report their initial thoughts on probability, location, maximum probable extent, and secondary impacts. Rankings were assigned individually based on knowledge of past occurrences and familiarity with the District's vulnerabilities. The survey was provided to participants during LHMP team meetings, and all attendee filled out the survey. Results were averaged to provide a group score per hazard, utilizing the weighted value based on the importance of the criterion.

The hazard rankings were multiplied by weighted factors to obtain a score for each criterion. A higher weight was given to the criterion considered more important or significant. For example, the probability of the hazard's occurrence received a higher weight than the potential secondary impacts. The scores for location, maximum probable extent (anticipated damage), and secondary impacts for each hazard were added together to determine the total impact score for each hazard. The total impact score was then multiplied by the overall probability score to determine the final score for each hazard. The final scores were used to determine the prioritization of each hazard based on the following FEMA recommended scale:

- Low Threat: 0 – 12
- Medium Threat: 12.1 - 42
- High Threat: 42.1 and above

Hazard Type	Probability	Location	Primary Impact	Secondary Impact	Total Score	Hazard Ranking
Drought	7.82	3.056	1.974	1.365	14.215	Medium
Earthquake	5.82	2.84	2.289	1.82	12.769	Medium
Extreme Weather-High Heat	7.28	2.84	1.526	1.09	12.736	Medium
Wildfire	6.9	1.96	2.163	1.59	12.613	Medium
Public Health Emergency	4.36	2.328	1.785	1.41	9.883	Low
Extreme Weather-Heavy Rains	4.54	2.112	1.652	1.135	9.439	Low
Dam Failure	2	2.184	2.289	1.82	8.293	Low
Flood	2.9	1.96	1.848	1.41	8.118	Low
Extreme Weather-Severe Cold	3.82	1.888	1.015	0.82	7.543	Low
Landslide/ Mudslide	3.1	1.16	1.463	1	6.723	Low
Geological Hazards-Land Subsidence	2.72	1.16	1.274	0.865	6.019	Low
Geological Hazards-Expansive Soils	2.36	1.16	1.211	0.82	5.551	Low

Impacts and Vulnerabilities

The District's priority hazards include the following:

#1- Flood – Throughout the service area, District assets are located within FEMA mapped 100-year and 500-year flood plain zones. Assets located within these zones, such as the District headquarters, SRWRF, production wells, pressure reducing stations, lift stations, and pumpstations are vulnerable to floods due to location and perimeter design. Possible impacts to District assets include, but are not limited to:

- Collection system inundation (SRWRF, lift station)
- Water contamination (Wells)
- Restricted access (all assets)

- Forced alternate work and equipment staging locations (SRWRF, Headquarters)
- Foundation erosion (all assets)
- Soil erosion (pipelines)

Moderate to Low Risk Areas		
Zone	**Asset**	**Replacement Value**
SHADED X	Alvarez Pump Station	$ 8,000,000.00
SHADED X	Butterfield Stage Pump Station	$ 12,000,000.00
SHADED X	Well 102	$ 6,000,000.00
SHADED X	Well 109	$ 6,000,000.00
SHADED X	Well 120	$ 6,000,000.00
SHADED X	Well 176	$ 6,000,000.00
SHADED X	Well 232	$ 6,000,000.00
High Risk Areas		
Zone	**Asset**	**Replacement Value**
A	Los Caballos Pressure Reducing Station	$ 750,000.00
A	Los Caballos Pump Station	$ 8,000,000.00
A	Lower VDC	$ 30,000,000.00
A	Upper VDC	$ 65,000,000.00
A	Well 118	$ 6,000,000.00
A	Well 123	$ 6,000,000.00
A	Well 130	$ 6,000,000.00
A	Well 131	$ 6,000,000.00
A	Well 132	$ 6,000,000.00
A	Well 133	$ 6,000,000.00
A	Well 141	$ 6,000,000.00
A	Well 149	$ 6,000,000.00
A	Well 152	$ 6,000,000.00
A	Well 154	$ 6,000,000.00
A	Well 157	$ 6,000,000.00
A	Well 158	$ 6,000,000.00
A	Well 161	$ 6,000,000.00
A	Well 164	$ 6,000,000.00
A	Well 177	$ 6,000,000.00
A	Well 203	$ 6,000,000.00
A	Well 233	$ 6,000,000.00
A	Well 236	$ 6,000,000.00
AE	Cal Oaks Lift Station	
AE	Headquarters	$ 26,000,000.00
AE	Joaquin Ranch Pump Station	$ 8,000,000.00
AE	Recycled Water Storage Pond 4	$ 12,000,000.00

Zone	Asset	Replacement Value
AE	Well 118	$ 6,000,000.00
AE	Winchester Park Lift Station	
AH	Santa Rosa Water Reclamation Facility	$ 70,000,000.00

#2-Wild Fire - Many of the District's facilities are located in or near open grassland and are potentially subject to the effects of a wildfire burning across the area. The fuel density in the majority of these areas is primarily medium to high. For all District facilities, to reduce potential fire hazard, vegetation should be adequately irrigated and consist of fire-resistant landscape or replaced with resistant landscape. Also, there should be a setback from the facility to any native vegetation susceptible to burning, in order to minimize the potential for fire damage.

#3- Earthquake – Rancho Water is located in a Seismic Hazard Zone. The nearest active earthquake fault is the Elsinore Fault, which is located in the District's service area. Rancho Water has experienced several noticeable earthquake incidents over the last 15 years; however, no local damage was sustained. Mitigation funding would be used to earthquake-harden facilities and to retrofit pump stations.

#4-Severe Weather – The District is subject to high winds, usually as a result of Santa Ana conditions when high pressure pushes winds from the north and east across the region. District facilities may be damaged as a result of trees or tree branches falling on the facility or exposed infrastructure; however, the most likely scenario would be the loss of power to a facility or several facilities in a power grid from power lines being blown down.

#5- Hazardous Materials - The District uses various chemicals at its facilities for water treatment and disinfection. Chemical containers are double-walled and/or bermed to prevent releases, and any release would be localized and contained onsite; however, there are major transportation corridors, the I-15 and I-215 freeways, on which hazardous chemicals are transported daily near District facilities. A collision on one of these freeways, or a derailment, could potentially release any number of toxic chemicals either onto the ground or as an airborne release. Such a release could have an effect on District staff to be able to access and operate and/or maintain District facilities.

#6- Agricultural Hazards - Some of the lands within the District service area are in agricultural production, primarily avocado farms and wineries. Crop losses in the surrounding area due to hazards have economic impacts in Riverside County. The District service area's agriculturally-based economy is vulnerable to freezes, heat waves, flooding, drought, and insect infestations. An event that results in reduced crop or product production could negatively impact Rancho Water by a loss of revenue due to a reduction in water sales.

#7- Dam Failure - The Robert A Skinner Dam is located in the northwest section of the District's service area, with Vail Dam located in the northeast section. A failure of either dam would result in major damage to District facilities.

#8- Drought - The Riverside County area is semi-arid and, in most areas, depends on water imported from other areas. The area has been in a drought condition for the past six years, with an extreme drought condition present in 2014, 2015, and into 2016. Even those communities and districts that have well water are dependent on local snowfall to replenish the groundwater that supplies those wells. The extended drought in the Southern California region requires the District to rely on an increase in imported water; however, that imported water source was affected by the drought conditions present, making it available in limited quantities.

SECTION 5.0 – COMMUNITY RATING SYSTEM

5.1 REPETITIVE LOSS PROPERTIES

This map shows flood zones for Rancho Water's service area. In 1980 and 1993, some pipelines were exposed and some levees or berms were washed out and had to be rebuilt. The damage was caused by heavy rains, which caused Vail Dam to overflow. These facilities were located at the canyon below Vail Dam/Lake. There are approximately 20 facilities near the blue flood zones. **There is no repetitive loss properties.**



5.2 NATIONAL FLOOD INSURANCE PROPERTIES

Rancho Water is not a member of the National Flood Insurance Program (NFIP), and is self-insured with excess coverage provided by membership in Association of California Water Agencies/Joint Powers Insurance Authority (ACWA/JPIA).

SECTION 6.0 - CAPABILITIES ASSESSMENT

Capabilities assessments are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections:

- Planning and Regulatory Mitigation Capabilities
- Administrative and Technical Mitigation Capabilities
- Financial Mitigation Capabilities
- Education and Outreach Mitigation Capabilities
- Funding Opportunities

How can these capabilities be expanded upon and improved to reduce risk?

Multiple mitigation measures are priority projects to expand on the District's capabilities, including new plans and programs. Example of opportunities to expand capabilities include the following mitigation actions **(Refer to Section 7.2 Mitigation Actions Table)**:

Planning and Regulatory: Develop Emergency Water Outage Supply plan and identify/purchase equipment required (Mitigation Activity #18), Develop site specific response plans for assets within the 100- and 500-year flood plain zones (Mitigation Activity #21), Review, update, and exercise Vail Dam Emergency Action Plan (Mitigation Activity #27), Develop Emergency Response Plan addressing tactics to mitigate displaced employees and family in the wake of a regional natural disaster (Mitigation Activity #35)

Administrative and Technical: Improve Vail Dam remote monitoring/surveillance capabilities (Mitigation Activity #2), Permit and Construct Vail Dam Seismic and Hydrologic Rehabilitation Project (Mitigation Activity #4), Conduct groundwater banking study (Mitigation Activity #5), Construct VDC regional pump station and chlorine contact tank (Mitigation Activity #6), Construct additional and replacement groundwater supply wells (Mitigation Activity #7), Rehabilitate existing wells (Mitigation Activity #8), Expand recycled water distribution system (Mitigation Activity #9), Study, design, and implement an Indirect Potable Recharge and associated brine disposal facilities (Mitigation Activity #10), Expand Carancho Pump Station and Construct new Rapid Aerial Water Supply Tank (Mitigation Activity #11), Design and construct hydroelectric generation facilities at the Upper VDC and Elm St Pump Station (Mitigation Activity #12), Identify and implement additional measures to harden power infrastructure (Mitigation Activity #13), Develop a District-wide leak detection program (Mitigation Activity #14), Replace aging pipeline infrastructure (Mitigation Activity #15), Assess facility access roads for landslide and mudslide susceptibility (Mitigation Activity #16), Conduct study of liquefaction zones within District Service area (Mitigation Activity #17), Continue developing a corrosion control program (Mitigation Activity #19), Develop lone worker safety program (Mitigation Activity #20), Identify, establish, and test alternate Operations staging area and alternate Emergency Operations Center locations

(Mitigation Activity #22), Improve cell phone and radio coverage (Mitigation Activity #23), Install pan, tilt, zoom, cameras at critical District facilities within fire zone (Mitigation Activity #24), Provide Safety Assessment Program training to engineering staff (Mitigation Activity #25), Consider alternate District staging locations and/or alternate Headquarters location better suited to withstand emergencies, primarily flood impacts (Mitigation Activity #26), Add onsite energy generation and storage/batteries to power critical infrastructure when grid power is not available (Mitigation Activity #28), Conduct study and evaluate need to replace Ace Bowen Reservoir No.1 (Mitigation Activity #29), Design and implement system valve replacement projects to reduce water loss and improve recovery time in the wake of disasters or line breaks (Mitigation Activity #30), Design and construct indirect potable reuse project and brine line to fully maximize future local supplies (Mitigation Activity #31), Identify and implement solution to mitigate the effects of mudslides and debris flow at historically impacts site (Mitigation Activity #32), Assess District limitations in responding to pipeline breaks resulting from natural disasters (Mitigation Activity #33), Conduct vulnerability study for a District wide zero emissions fleet (Mitigation Activity #34), Develop, design, and install flood monitoring system on the Murrieta Creek Channel (Mitigation Activity #36), Identify alternative sources of gasoline and diesel during fuel shortages (Mitigation Activity #37), Conduct Vail Lake dredging project to add additional reservoir storage capabilities (Mitigation Activity #39), Install floating cover on recycled water ponds to reduce evaporation (Mitigation Activity #40), Relocate pipelines parallel to active creek banks or construct pipeline protection improvements (Mitigation Activity #41), Install new water meters for greater identification of losses/leaks increasing water conservation (Mitigation Activity #42)

Financial: Provide all applicable NIMS, SEMS, and ICS training to District employees (Mitigation Activity #3), Replace aging pipeline infrastructure that has shown a propensity to fail to minimize system water loss (Mitigation Activity #15), Improve cell phone and radio coverage at locations where signal strength is weak (Mitigation Activity #23), Identify alternative sources of gasoline and diesel during fuel shortages (Mitigation Activity #37)

Education and Outreach: Provide all applicable NIMS, SEMS, and ICS training to District employees (Mitigation Activity #3), Establish effective Public Information Campaign(s) for Water Conservation (Mitigation Activity #38)

6.1 PLANNING AND REGULATORY MITIGATION CAPABILITIES

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Plan Resource	Rancho Water 2015 Urban Water Management Plan	The Urban Water Management Plan (UWMP) ensures the reliability of water supply is sufficient to meet the needs of water customers during normal, dry, or multiple dry years. Mitigation actions may involve updating water use policies to reflect changes in the regional water supply trends and conservation.	http://www.ranchowater.com/DocumentCenter/View/2023
Plan Resource	Rancho Water Mandatory Recycled and Raw Water Use Plan	The Mandatory Recycled and Raw Water Use Plan indicates when recycled, raw, or non-potable water shall be used. Mitigation actions may involve determining the source of water supplied in order to preserve public health, safety and welfare; and the environment.	http://www.ranchowater.com/documentcenter/view/3344
Policy Resource	Riverside County/ City of Temecula Building Code	The Riverside County and City of Temecula Building Codes serve as the basis for the design and construction of buildings in their respective jurisdictions. Mitigation actions involve constructing Rancho Water facilities to the current code standard in order to provide buildings with increased hazard resilience.	https://temeculaca.gov/279/Codes-Standards
Policy Resource	Insurance Services Office (ISO) Public Protection Classification Rating	The ISO completes periodic analysis of the structural fire suppression delivery system for communities serviced by Rancho Water. Mitigations actions include identifying fire hydrants in need of additional water pressure for firefighting capabilities.	https://www.isomitigation.com/about-us/

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Plan Resource	District Water Facilities Master Plan	The Water Facilities Master Plan addresses how water, wastewater, and reclamation services are provided to existing and future customers within the District. Mitigation actions include identifying water supply sources to meet anticipated future demands; and the management of current water resources and facilities to supply water services to customers.	http://www.ranchowater.com/documentcenter/view/1802
Policy Resource	Stormwater Management Program Cities of Murrieta and Temecula; and Riverside County	Stormwater management programs regulate the discharges of runoff into a municipal separate storm sewer system to prevent pollutants from entering bodies of water. Mitigation actions include updating District policies in response to changes in applicable stormwater management programs to prevent the discharge of pollutants in bodies of water.	https://temeculaca.gov/796/Water-Quality-Management-Plan http://www.murrietaca.gov/departments/trash/special/stormwater.asp
Plan Resource	Rancho Water Capital Improvement Plan	The Capital Improvement Plan is a five-year projection of the District's capital funding requirements for planned capital projects such as the construction, repair, rehabilitation, or improvement of District assets. Mitigation actions may include the improvement or construction of District facilities to increase hazard resilience.	http://www.ranchowater.com/DocumentCenter/View/2875
Plan Resource	Rancho Water Emergency Operations Plan	The Emergency Operations Plan incorporates and coordinates all District facilities and personnel into an efficient organization capable of responding effectively to any emergency. Mitigation actions include the continuous testing and evaluation of response tactics, organization, and management to maximize effectiveness	Confidential

Type of Resource	Resource Name	Ability to Support Mitigation	Web Address
Plan Resource	Rancho Water Sewer System Management Plan (SSMP)	The SSMP provides a plan and schedule to properly manage, operate, and maintain all portions of the District's wastewater collection system. Mitigation actions include the continuous testing and evaluation of tactics in response to sanitary sewer overflows to maximize effectiveness. Plan also identifies long term capital improvement projects for future hazard mitigation.	http://www.ranchowater.com/documentcenter/view/211
Plan Resource	Rancho Water Agricultural Water Management Plan (AWMP)	The AWMP serves to provide a reliable source of water to the agricultural customers of Rancho Water. Possible mitigation actions include improvement of District facilities to meet customer needs, changing of policy in response to environmental or legislative factors; and preparing for catastrophic emergencies.	http://www.ranchowater.com/documentcenter/view/3342
Plan Resource	District Water Shortage Contingency Plan (WSCP)	The WSCP discusses planned contingencies in the event of drought, water supply reductions, failure of a water distribution system, or emergencies impacting water reliability within the District. Mitigation actions include implementing water reduction policies in response to water shortages.	http://www.ranchowater.com/documentcenter/view/579

6.2 ADMINISTRATIVE AND TECHNICAL MITIGATION CAPABILITIES

The administrative and technical capabilities of Rancho Water, as shown in the table below, indicates the staff and resources available to support hazard mitigation activities at the District. Specific resources reviewed include those involving technical personnel such as planners/engineers with knowledge of land development and land management practices, engineers trained in construction practices related to building and infrastructure, planners and engineers with an understanding of natural or manmade hazards, floodplain managers, surveyors, and personnel with GIS skills and scientist familiar with hazards in the community.

Personnel Resources	Yes/No	Department/Position
Planner/engineer with knowledge of land development/land management practices	Yes	Director of Administration and Assistant General Manager-Engineering & Operations
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Assistant General Manager-Engineering & Operations, Director of Planning, Director of Engineering
Planner/engineer/scientist with an understanding of natural hazards	Yes	Assistant General Manager-Engineering & Operations, Director of Planning, Director of Operations
Personnel skilled in GIS	Yes	Datacenter Operations Supervisor and Director of Administration, Director of Planning
Full time building official	No	n/a
Floodplain manager	No	n/a
Emergency manager	Yes	Safety/Risk Officer, Director of Operations
Grant writer	Yes	Director of Administration
Other personnel	Yes	General Manager and Assistant General Manager
Warning systems/services (Reverse 9-1-1, outdoor warning signals)	No	Safety/Risk Officer, Director of Administration

6.3 FINANCIAL MITIGATION CAPABILITIES

The table below indicates the financial and budgetary tools available to Rancho Water, such as community development block grants; capital improvements project funding; authority to levy taxers for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and holding spending in hazard-prone areas.

Financial Resources	Accessible/ Eligible to Use (Yes/No)	Comments
Community development block grants	No	
Capital improvements project funding	Yes	
Authority to levy taxes for specific purposes	Yes	With voter approval
Fees for water, sewer, gas, or electric services	Yes	Water and Sewer
Impact fees for new development	Yes	
Incur debt through general obligation bonds	Yes	With voter approval
Incur debt through special tax bonds	Yes	With voter approval
Incur debt through private activities	No	
Withhold spending in hazard prone areas	n/a	
Other	n/a	

6.4 EDUCATION AND OUTREACH MITIGATION CAPABILITIES

Annually, Rancho Water conducts a Joint Agency Emergency Response Drill, which is a live drill with first responders and equipment responding to a simulated emergency event. Participants include Cal FIRE, Riverside County Fire, City of Temecula Fire, City of Temecula Police Department, Riverside County EMD, Riverside County Health Department, Riverside County Sheriff's Department, City of Murrieta Police Department, City of Murrieta Fire Department, and Rancho Water.

Rancho Water is a member of the Water/Wastewater Agency Response Network (Cal WARN) and ERNIE. The mission of Cal WARN and ERNIE is to support and promote statewide emergency preparedness, disaster response, and mutual assistance matters for public and private water and wastewater utilities.

6.5 FUNDING OPPORTUNITIES

Rancho Water has the same funding opportunities as Riverside County Operational Area. Please refer to Section 7.2 and Table 7-1 of the Riverside County Multi-Jurisdictional Hazard Mitigation Plan for a list of funding sources available.

SECTION 7.0 - MITIGATION STRATEGIES

7.1 GOALS, PRIORITIZATION, AND COST-BENEFIT ANALYSIS

The planning team created an overarching set of Goals to help define the Actions and Mitigation strategies for each identified hazard. Five primary goals were developed as follows:

1. Protect public safety and prevent loss of life and injury
2. Minimize and prevent damage to District assets and infrastructure
3. Minimize operational downtime and accelerate recovery after disasters
4. Reduce the cost of disaster response and recovery
5. Increase education, outreach, and awareness

To meet the defined goals above, a detailed list of Mitigation Strategies for the primary hazards was identified and ranked. Section 7.2 lists the mitigation activities and projects defined as part of this 2023 LHMP update and provides the timeframe, priority ranking, and potential funding source(s). The LHMP Project Team discussed each mitigation action to identify the priority, using the following as guidance:

- High Priority: Top District priority and is generally a vetted project concept. Benefits a large population, critical resource, or property at risk.
- Medium Priority: A less defined concept that requires additional study, benefits a lower amount of the service area or addresses a more moderate hazard.
- Low Priority: A concept that is not well defined, benefits a small group or lone facility, or protects against a lower-level hazard or threat.

A hazard mitigation plan must demonstrate that a process was employed which emphasized a review of benefits and costs when prioritizing the mitigation actions. The benefit-cost review must be comprehensive to the extent that it can evaluate the monetary as well as the non-monetary benefits and costs associated with each action. The benefit-cost review should at least consider the following questions:

- How many customers will benefit from the action?
- How large an area is impacted? Which areas would benefit from the action? How critical are the facilities that benefit from the action?
- Environmentally, does it make sense to do this project for the overall service area?

These questions were considered to help determine the appropriate mitigation actions and projects. Those actions that did not have adequate benefits to the District were not included.

For those mitigation actions that have or will become District Projects, a customized prioritization tool is utilized each year as part Rancho Water's 5-year Capital Improvement Plan (CIP) update. The projects recommended in the 5-Year CIP are prioritized utilizing the following process:

1. Establish CIP Prioritization Criteria (i.e., Benefit Criteria). Once established, the Benefit Criteria can be revisited from time to time to confirm if business or strategy of the District warrant revision to the Benefit Criteria. Once developed or revised, the Benefit Criteria receive a weighting. There are thirteen (13) Benefit Criteria and their respective weightings, which are identified as follows:

Criteria	Weighting
Maintain Regulated (Safety)	16%
Maintain Regulated (Service)	15%
New Regulations (Safety)	15%
New Regulations (Service)	15%
Maintain Discretionary Level of Service (LOS)	10%
Growth	9%
Resilience	6%
Financial	5%
Enhance Discretionary LOS	5%
Maintain Aesthetics	1%
Environmental Improvement	1%
Enhance Aesthetics	1%
Working Environment	1%
Sum	**100%**

2. Multi Criteria Prioritization. The weighted Benefit Criteria are then applied to the projects for prioritization. Each proposed project needs to have at least one benefit for it to be considered in the CIP. A project with at least one benefit (and no more than three) are then loaded into the District's Multi Criteria Prioritization (MCP) model under one or more of four investment drivers (maintaining an asset, maintain regulatory, enhancing service, and growth) and scored based on risk improvement and population impacted.

3. Derive Uptake Factor. An Uptake Factor is then applied to scale (normalize) the projects and reflect the number of customers (or other stakeholders) receiving the benefit. The distinctive feature of the Uptake Factor is to more clearly distinguish between large projects providing benefits to a large number of customers versus small projects providing benefits to a small number of customers. This step results in a total benefit score.

4. Review and Adjust Benefit Scores. This step is conducted collaboratively in a group consensus setting.

5. Calculate Efficiency. This step is performed within the modeling tool. The calculated efficiency value helps to understand how projects compare to other projects of similar cost in terms of total benefit delivered for the cost. This is an important step to help ensure that large projects that may have a broad system-wide benefit are not disadvantaged in the model.

6. Calculate Priority Score. This step is performed within the modeling tool. The priority value is on a 1 to 5 scale, with 1 being most advantageous (highest priority) and 5 being least advantageous (lowest priority).

7.2 MITIGATION ACTIONS

Table 7-1 indicates the mitigation actions/projects developed as part of this 2023 LHMP to address the potential hazards identified within this plan.

The District will evaluate future mitigation strategies as conditions change in regard to status of existing mitigation projects, the addition of new facilities, expansion of existing facilities, and as environmental and economic and local development conditions change.

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
1	Create and maintain fuel break around critical facilities within identified fire zones.	Wildland Fire	G1, G2, G3, G4	Field Services	1-3 years (recurring)	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
2	Improve Vail Dam remote monitoring/surveillance capabilities	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G3, G4, G5	Operations & Engineering	3-5 years	High	District Operating Fund and/or Future Hazard Request
3	Provide all applicable NIMS, SEMS, and ICS training to all District Management	Earthquake, Flood, Landslide, Extreme Weather, Geological Hazards	G1, G2, G3, G4	Electrical Services, Information Systems, Safety and Risk	1-3 years (initial/ refresher	High	District Operating Fund and/or Future Hazard Request
4	Permit and construct Vail Dam Seismic and Hydrologic Rehabilitation Project	Dam Failure, Earthquake, Flood, Extreme Weather, Geological Hazards	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Mitigation Grant Funds Request
5	Conduct groundwater banking study to identify suitable areas and required facilities to increase groundwater storage and banking.	Drought	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
6	Construct VDC regional pump station and chlorine contact tank to enhance local supplies and increase drought resiliency.	Drought	G1, G2, G3, G4	Operations & Engineering	1-3 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
7	Construct additional and replacement groundwater supply wells to provide additional water supply capacity and system reliability.	Drought	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
8	Rehabilitate existing wells to restore reliable capacity of groundwater production.	Drought	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
9	Expand recycled water distribution system to fully maximize future local supplies and/or offset non-local imported water used for irrigation	Drought	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
	Study, design, and implement an	Drought	G1, G2, G3, G5	Operations &	5-7 years	High	Capital Improvement

10	Indirect Potable Recharge and associated brine disposal facilities to fully maximize future local supplies.			Engineering			Fund and/or Future Hazard Mitigation Grant Funds Request
11	Expand Carancho pump station and construct a new Rapid Aerial Water Supply Tank to improve system redundancy and provide aerial access (i.e. helicopter drops) to water in high fire prone areas.	Drought, Wildland Fire	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
12	Design and construct hydroelectric generation facilities at the Upper VDC and Elm Street Pump Station to provide reliable power to critical facilities during power outages	Earthquake, Wildland Fire, Flood, Landslide, Extreme Weather	G1, G2, G3, G4	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
13	Identify and implement additional measures to harden power infrastructure including procurement and installation of new generators and/or security of power/backup power infrastructure	Earthquake, Wildland Fire, Flood, Landslide, Extreme Weather	G1, G2, G3, G5	Operations & Engineering	5-7 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
14	Develop a District-wide leak detection program. Identify and source needed staff and equipment and make system repairs to avoid water loss.	Drought	G1, G2, G3, G4	Field Services	1-3 years	High	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
15	Replace aging pipeline infrastructure that has shown a propensity to fail to minimize system water loss	Drought	G1, G2, G3, G3	Safety and Risk, Field Services, Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
16	Assess facility access roads for landslide and mudslide susceptibility. Identify and implement needed mitigation activities.	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G2, G3, G4	Safety and Risk, Field Services, Engineering	5-7 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
17	Conduct study of liquefaction zones within District Service area and identify any applicable mitigation actions to protect facilities	Earthquake	G1, G2, G3, G4	Engineering	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
18	Develop Emergency Water Outage Supply plan and identify/purchase equipment required. Link GIS facilities map to County/State databases to identify risk and status of water facilities by area (safe, threatened, out of service, etc.) during Hazard events	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G3	Safety and Risk, Operations, Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
19	Continue developing a corrosion control program to improve the reliability and maintenance of pipelines and steel tank reservoirs.	Drought, Extreme Weather	G1, G4	Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
20	Develop lone worker safety program.	Dam Failure, Earthquake, Wildland Fire, Flood, Landslide, Extreme Weather	G1, G2, G3	Safety and Risk	3-5 years	Medium	Capital Improvement Fund and/or Future Mitigation Grant Funds Request

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
21	Develop site specific response plans for assets within the 100- and500-year flood plain zones	Dam Failure, Flood, Extreme Weather,	G1, G2, G3, G4	Safety and Risk	3-5 years	Medium	Capital Improvement Fund, Operating Fund, and/or Future Hazard Mitigation Grant Funds Request
22	Identify, establish, and test alternateOperations staging area and alternate Emergency Operations Center locations in the event Headquarters or the SRWRF are inoperable including, but not limitedto, land acquisition or purchase of mobile command trailer.	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G2, G3, G4	Safety and Risk, Field Services, Operations, Water Reclamation	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
23	Improve cell phone and radio coverage at locations where signalstrength is weak	Dam Failure, Earthquake, Wildland Fire, Flood, Landslide, Extreme Weather,	G1, G5	Engineering, Electrical Services, Information Systems	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
24	Install pan, tilt, zoom, cameras at critical District facilities within firezone for increased situational awareness	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards	G1, G2, G3, G4, G5	Safety and Risk, Information Technology, Electrical Services, Field Services.	1-3 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
25	Provide Safety Assessment Program training to engineering staff in order to conduct facility assessments post-earthquake.	Earthquake	G1, G3	Safety and Risk, Engineering	5-7 years	Medium	Operating Fund and/or Future Hazard MitigationGrant Funds Request

26	Consider alternate Districtstaging locations and/or alternate Headquarters location better suited to withstand emergencies, primarily flood impacts	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G2, G3	Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
27	Review, update, and exercise Vail Dam Emergency Action Plan. Includeand coordinate Dam exercise in withall applicable emergency management agencies/department (e.g., City of Temecula, Riverside County Emergency Management Department, Riverside County Sheriff's Office).	Dam Failure, Earthquake, Flood, Landslide, Extreme Weather, Geological Hazards	G1, G3, G4, G5	Safety and Risk	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
28	Add onsite energy generation andstorage/batteries to power criticalinfrastructure when grid power is not available.	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G2, G3, G4	Operations and Engineering	5-7 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
29	Conduct study and evaluate need toreplace Ace Bowen Reservoir No.1; Implement identified solution.	Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather	G1, G2, G3, G4	Operations & Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
30	Design and implement system valvereplacement projects to reduce water loss and improve recovery time in the wake of disasters or line breaks	Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards	G1, G2, G3, G4	Operations & Engineering	3-5 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
31	Design and construct indirect potable reuse project and brine lineto fully maximize future local supplies	Drought	G1, G2, G3, G4	Engineering	5-7 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request

32	Identify and implement solution to mitigate the effects of mudslides and debris flow at historically impacts site e.g., Los Caballos pump station and Tenaja reservoir	Wildland Fire, Flood, Landslide, Extreme Weather	G1, G2, G3, G4	Operations and Engineering	5-7 years	Medium	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
33	Assess District limitations in responding to pipeline breaks resulting from natural disasters. Identify and acquire needed staff and/or resources	Dam Failure, Earthquake, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards	G1, G2, G3, G4	Operations and Engineering	3-5 years	Medium	Capital Improvement Fund, Operating Fund, and/or Future Hazard Mitigation Grant Funds Request
34	Conduct vulnerability study for a District wide zero emissions fleet. Identify vulnerabilities, implementrecommended mitigation actions, and purchase related equipment/infrastructure	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G2, G3, G4	Safety and Risk, Field Services, Engineering	5-7 years	Medium	Capital Improvement Fund, Operating Fund, and/or Future Hazard Mitigation Grant Funds Request
35	Develop Emergency Response Planaddressing tactics to mitigate displaced employees and family in the wake of a regional natural disaster. Research and purchase needed equipment.	Dam Failure, Earthquake, Drought, Wildland Fire, Flood, Landslide, Extreme Weather, Geological Hazards, Public Health Emergency	G1, G2, G3	Safety and Risk	3-5 years	Low	Operating Fund and/or Future Hazard MitigationGrant Funds Request
36	Develop, design, and install flood monitoring system on the MurrietaCreek Channel in order to detect critical flood conditions.	Dam Failure, Flood, Extreme Weather	G1, G2, G3, G4, G5	Safety and Risk	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
37	Identify alternative sources of gasoline and diesel during fuelshortages.	Dam Failure, Earthquake, Wildland Fire, Flood, Extreme Weather, Public Health Emergency	G1, G2, G3, G5	Safety and Risk, Field Services	5-7 years	Low	Operating Fund and/or Future Hazard MitigationGrant Funds Request

38	Establish effective Public Information Campaign(s) for WaterConservation	Drought	G5	Engineering	5-7 years	Low	Operating Fund and/or Future Hazard MitigationGrant Funds Request

	Mitigation Activity	Hazard(s) Addressed	Goal	Responsible	Timeframe	Priority	Potential Funding
39	Conduct Vail Lake dredging project to add additional reservoir storage capabilities to increase resilience to drought conditions	Drought	G1, G2, G3, G4	Engineering	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
40	Install floating cover on recycled water ponds to reduce evaporation	Drought	G1, G2, G3, G4	Engineering	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request
41	Relocate pipelines parallel to active creek banks or construct pipeline protection improvements to increase resiliency to flood damage. (e.g., Meadowview pipelines, Vineyard Parkway sewer pipeline, Well No. 240 discharge line)	Flood, Extreme Weather	G1, G2, G3, G4	Operations & Engineering	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation GrantFunds Request
42	Install new water meters for greater identification of losses/leaks increasing water conservation	Drought	G1, G2, G3, G4	Operations & Engineering	5-7 years	Low	Capital Improvement Fund and/or Future Hazard Mitigation Grant Funds Request

SECTION 8.0 - PLAN IMPLEMENTATION AND MAINTENANCE PROCESS

Rancho Water will monitor and evaluate the District's LHMP annually, with an official update every five years. The District will assess, among other things, whether:

- The goals and objectives address current and expected conditions
- The nature, magnitude, and/or type of risks have changed
- The current resources are appropriate for implementing the plan
- There are implementation problems, such as technical, political, legal, or coordination issues with other agencies
- The outcomes have occurred as expected (a demonstration of progress)
- The agencies and other partners participated as originally proposed

If the District discovers changes have occurred during the evaluation, updates will be made to the LHMP *Revision Page*, and Riverside County EMD will be notified to update Rancho Water's Annex. Rancho Water will adopt the updated or evaluated plan within five years of the adoption of the previous plan.

Rancho Water's Safety/Risk Officer will be in charge of the monitoring, evaluation, and updating of the District's LHMP.

Refer to table 7-1 which references the Capital Improvement Plan which is the District's vehicle for approval and funding of projects, initiatives, and programs that support the LHMP.

SECTION 9.0 - INCORPORATION INTO EXISTING PLANNING MECHANISMS

Rancho Water's LHMP has several planning mechanisms that will continue to incorporate, or work in conjunction with, the following District plans, as did the previous LHMP:

- Emergency Operations Plan
- Urban Water Management Plan
- Capital Improvement Plan
- Water Shortage Contingency Plan

Rancho Water has a safety element in its Emergency Operations Plan that includes a discussion of mitigation activities for fire, earthquake, flooding, and additional hazards. The goals of the LHMP are reflected with in these discussions. Additionally, as local, state, and federal regulations change, staff will draft revisions for the plan subject to approval from the Board of Directors by the way of public meetings during which comments are sought and considered from the public. This plan is compliant with the National Incident Management System (NIMS) and the Standard Emergency Management System (SEMS).

SECTION 10.0 - CONTINUED PUBLIC INVOLVEMENT

The District will provide for continued public involvement with the LHMP over the next five years through website postings of activities relating to the LHMP and solicit public comment through the same avenue. Should District management or the Board of Directors indicate the desire for public meetings, such meeting dates will be posted inviting the public to the meeting.

APPENDIX A – PUBLIC NOTICES

AGENDA

JOINT REGULAR MEETING
OF THE
PLANNING AND ADMINISTRATION COMMITTEE
AND SPECIAL MEETING OF THE BOARD OF DIRECTORS
OF THE
RANCHO CALIFORNIA WATER DISTRICT

Board Room
Rancho California Water District
42135 Winchester Road
Temecula, California

Thursday, January 19, 2023
8:30 AM

Members of the public may participate in this meeting by attending in person at 42135 Winchester Road, Temecula, CA 92590, or virtually, as identified below:

To join the meeting via computer or smart device, go to <<https://zoom.us/join>> and enter the following Meeting ID and Password: **Meeting ID: 846 2728 3222| Password: 42135.** If you would like to join by calling in, dial **(669) 900-6833** and enter the same Meeting ID and Password: **Meeting ID: 846 2728 3222 | Password: 42135.**

Any member of the public wishing to make any comments to the Board may do so in person, via the Zoom platform by utilizing the "Raise Hand" function, or if you have dialed in, enter *9 on your phone, and you will be identified by your phone number when it is your turn to speak. You may also submit comments in writing before the start of the meeting by visiting https://ranchowater.com/comments.

CALL TO ORDER

ROLL CALL

ADDITIONS TO AGENDA

Items may be added to the Agenda in accordance with Section 54954.2(b)(2) of the Government Code (Brown Act), upon a determination by a two-thirds vote of the members of the legislative body present at the meeting, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the Rancho California Water District after the Agenda was posted.

APPROVAL OF AGENDA

PUBLIC COMMENT

Any person may address the Committee at this time upon any subject not identified on this Agenda but within the jurisdiction of the Rancho California Water District. Please note that for items not listed on the agenda, the Brown Act imposes limitations on what the Committee may do at this time. The Committee may not take action on the item at this meeting. As to matters on the Agenda, persons will be given an opportunity to address the Committee when the matter is considered. If you wish to speak during public comment, please fill out a "Speaker Request Form" and give it to the Recording Secretary. When the Committee Chairman calls your name, please immediately step to the podium and begin by giving your name and address for the record. Each speaker will be given three (3) minutes to address the Committee.

1. Update on State Legislative and Federal Lobbying Activities
2. Consider Ratifying Appointments to Rancho California Water District's Pechanga Ad Hoc Committee
3. Review and Approve National, State, and Local Organizations per Administrative Code Section 3.13.3 Other Occurrences Which Qualify for Per Diem Compensation
4. Consider Approval of Rancho California Water District's 2023 Legislative Priorities
5. Review of Multi-Jurisdictional Local Hazard Mitigation Plan Update
6. Update on Customer Service Activity
7. Update on Grants and Water Use Efficiency Efforts
8. Update on Outreach and Educational Efforts
9. Presentation on Human Resources Activities
10. Adjournment

This Committee meeting is also noticed as a special meeting of the Board of Directors because a quorum of the Board may be present. Members of the Board who are not members of the Committee may attend and participate in the meeting, but only members of the Committee may make, second, or vote on any motion or other action of the Committee. Any actions taken pursuant to this agenda will be actions within the purview of the Committee and shall be approved by an affirmative vote of a majority of the quorum of the Committee. The Committee is not empowered to act for or on behalf of the Board or the District unless exercising delegated authority from the Board. Any actions taken by the Committee shall be deemed recommendations of the Committee for future consideration by the Board at a separately noticed regular or special meeting of the Board of Directors. The Board of Directors retains all powers, privileges, and duties to exercise and perform the business of the District.

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, as required by Section 202 of the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to the District Secretary at (951) 296-6900 at least 48 hours before the meeting, if possible.

Any writings or documents provided to a majority of the members of the Board of Directors regarding any item on this agenda will be made available for public inspection at the District's Administrative Headquarters Building located at 42135 Winchester Road, Temecula, California, during normal business hours.

Board Members of the Rancho California Water District
Planning and Administration Committee

Brian Brady, Chairman
J.D. Harkey, Member
William Plummer, Member
John Hoagland, Alternate

Rancho Water

COMMITTEE INFORMATION

PLANNING AND ADMINISTRATION COMMITTEE

ITEM 5: **REVIEW OF MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN UPDATE**

RESPONSIBLE/LEAD STAFF MEMBER(S):

Assistant General Manager-Engineering & Operations, Jake Wiley

RECOMMENDATION:

This item is presented for the Engineering and Operations Committee's information.

DISCUSSION:

In 2017, Rancho California Water District's (District) Board of Directors adopted the latest update to the District's Local Hazard Mitigation Plan (LHMP). The 2017 LHMP was an update to the original documents prepared in 2005-2006 and updated in 2011. The plans are scheduled to be updated every five years as required by the Federal Emergency Management Agency (FEMA) and involves working with the Riverside County Fire Department Office of Emergency Services (OES). Riverside County Fire Department OES includes these updated local plans within the Master Riverside County Multi-Jurisdictional LHMP and forwards them to the California Governor's Office of Emergency Services (Cal OES) and FEMA for final approval.

The requirement for a Multi-Jurisdictional LHMP is a result of the Disaster Mitigation Act of 2000 and Title 44 Code of Federal Regulations Emergency Management and Assistance, Part 201 Mitigation Planning. Local governments must have a mitigation plan approved pursuant to the section in order to receive Hazard Mitigation Grants pre- and post-disaster. Local governments consist of any county, municipality, city, town, township, public authority, school district, or special district. The District has benefited from the plan in the past as it was an essential requirement to secure FEMA funding for the design and construction of the Vail Dam Rehabilitation project.

Over the last six months, working with the Riverside County Emergency Management Department (EMD), a team consisting of the engineering department, the District's safety officer, the public information office, the finance department, the administration department, and the operations department completed a draft of the update and revision of the District's

2023 LHMP. The team plans to provide a copy of the updated plan to the Riverside County EMD on February 3, 2023. Over the following, six to eight months, the District's 2023 LHMP update will be reviewed by the Riverside County EMD, Cal OES, and FEMA. The Riverside County EMD and the District will complete any required corrections or revisions. Once all three agencies have accepted the LHMP, FEMA will send the District a letter advising the acceptance of the District's 2023 LHMP. At that time, staff will request the District's Board to adopt the District's 2023 Multi-Jurisdictional LHMP by formal resolution and send a copy of the resolution to the Riverside County EMD.

ALTERNATIVES:

Not applicable

FISCAL ANALYSIS:

Not applicable

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

A. Local Hazard Mitigation Plan 2023 Final Draft

APPENDIX B – PLAN REVIEW TOOL/CROSSWALK

SEE ATTACHMENTS

Riverside County EMD will complete the crosswalk upon review of the updated LHMP prior to transmitting to Cal OES and FEMA. EMD will provide a copy to make any corrections on the plan if needed and as indicted on the crosswalk.

Appendix D. Water Conservation Policy

Water Conservation Policy

Chapter History

Prepared in 2009 in Response to Metropolitan Water District of Southern California's Request for Conservation Compliance

Adopted May 14, 2009, Resolution No. 2009-5-4
Revised August 14, 2014
Revised March 12, 2015
Revised June 11, 2015
Revised June 10, 2021
Revised June 11, 2026

The current Water Conservation Policy for the Rancho California Water District is enclosed.

Rancho California Water District
WATER CONSERVATION POLICY

Revised: June 11, 2026 –
Ordinance No. 2021-6-X
Revised June 10, 2021–
Ordinance No. 2021-6-1
Revised June 11, 2015 –
Ordinance No. 2015-6-1
Revised: March 12, 2015–
Ordinance No. 2015-3-1
Revised: August 14, 2014–
Resolution No. 2014-8-1
Revised: June 11, 2009 –
Resolution No. 2009-6-19
Revised: July 10, 2008 –
Resolution No. 2008-7-4
Adopted May 14, 2009

Prepared in 2009 in Response to Metropolitan Water District of Southern California's Request for Conservation Compliance

Rancho California Water District
42135 Winchester Road
Temecula, California 92592
(951) 296-6900

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1. Findings and Declaration of Policy
2. General Provision
3. Penalties and Restitutions
4. Appeals and Process
5. Variance Conditions
6. Technical Assistance
7. Definitions of Terms

Section 1. Findings and Declaration of Policy

The Rancho California Water District (District) finds and determines that because of the prevailing conditions in the State it is necessary and appropriate for the District to adopt, implement, and enforce a Water Conservation Policy to ensure sufficient water for human consumption, sanitation, and fire protection. The District further finds the waste or unreasonable use, or unreasonable method of use of water shall be prevented and that water conservation practices shall be encouraged at all times.

In times of drought or water supply cutbacks, provisions of this Policy may be modified in accordance with State of California Regulations, the Metropolitan Water District of Southern California's Water Surplus and Drought Management and Water Supply Action Plans, as well as Rancho California Water District's Water Shortage Contingency Plan (WSCP). This Policy is in effect at all times and defers updates and implementation strategies, regarding water conditions and supplies to the WSCP for timely communications and media outreach when stage alerts are executed.

Section 2.General Provisions

In accordance with state law and Best Management Practices, it shall be a violation of this Policy at any time to make, cause, or permit the use of water for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner constituting waste. Customers shall abide by all requirements outlined in the applicable Shortage Stage of the WSCP including, but not limited to the following requirements at all times:

1. Refrain from hosing off sidewalks, driveways, and other hardscapes.
2. Refrain from washing vehicles (autos, trucks, trailers, motorhomes, boats, or other vehicles) with hoses not equipped with a shut-off nozzle. Use a hose equipped with an automatic shutoff valve or other device that causes it to cease dispensing water immediately when not in use.
3. Refrain from using non-recirculated water in a fountain or other decorative water feature.
4. Refrain from watering ornamental turf on public street medians,
5. Refrain from watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation.
6. Repair faucets, toilets, pipes and other potential sources of water leaks.
7. Irrigate landscape only between 6 p.m. and 9 a.m. This provision does not apply when:
    1. Manually watering during the establishment period of a new landscape;
    2. Supervised spot watering is done to address landscape issues;
    3. Temperatures are predicted to fall below freezing;
    4. Testing/repairing an irrigation system;
    5. Using drip and point-to-point irrigation systems; and
    6. A longer watering window is needed due to system constants
8. When installing plumbing fixtures, use low-flow devices, except for those that require high-flow fixtures for health and/or sanitary reasons. Where possible, install pool and spa covers to minimize water loss due to evaporation during non-operating days.

9. When installing new landscaping, refer to the Water Use Classification of Landscape Species (WUCOLS). Plant low-water California Friendly® Landscapes. Non-functional turf areas are not recommended. Turf-lined channels are only permitted when justified by environmental regulations.

10. Pursuant to Water Code section 10608.14, the use of potable water for the irrigation of nonfunctional turf located on commercial, industrial, and institutional properties, other than a cemetery, and on properties of homeowners' associations, common interest developments, and community service organizations or similar entities is prohibited as of the following dates:

    1. All properties owned by the Department of General Services, beginning January 1, 2027.
    2. All properties owned by local governments, local or regional public agencies, and public water systems, except those specified in paragraph (5), beginning January 1, 2027.
    3. All other institutional properties and all commercial and industrial properties, beginning January 1, 2028.
    4. All common areas of properties of homeowners' associations, common interest developments, and community service organizations or similar entities, beginning January 1, 2029.
    5. All properties owned by local governments, local public agencies, and public water systems in a disadvantaged community, beginning January 1, 2031, or the date upon which a state funding source is made available to fund conversion of nonfunctional turf on these properties to climate-appropriate landscapes, whichever is later.

11. Notwithstanding subdivision (10), the use of potable water is not prohibited to the extent necessary to ensure the health of trees and other perennial nonturf plantings, or to the extent necessary to address an immediate health and safety need.

12. The State Water Resource Control Board may, upon a showing of good cause for reasons including economic hardship, critical business need, and potential impacts to human health and safety, postpone a compliance deadline by up to three years for certain persons, institutions, and businesses, and may create a form to be used for compliance certification by property owners.

13. The District shall communicate the requirements of this section to affected customers on or before January 1, 2027.

Section 3. Administrative Fines

All persons with excessive runoff that causes water to flow from property into any gutters, streets, or alleys are subject to an immediate fine of $50. Those in violation of Section 2 General Provisions of this Policy are subject to the following:

1. For a first violation, the District may use a door hanger to alert the customer of the violation and shall issue a written notice of fact of such violation to the customer. The customer shall then be allowed a period of 10 days following issuance of the written notice to correct the violation described therein before a second violation will be issued.

2. For a second violation, the District shall issue a written notice of fact of such violation to

the customer. The customer shall then be allowed a period of 10 days following issuance of the written notice to correct the violation described therein before a third violation will be issued.

3. For a third violation, the District shall issue a written notice of fact of such violation to the customer when a second violation has not been corrected within a period of 10 days following issuance of the second violation notice. A fine in the amount of $50.00 shall be added to the customer's water bill upon issuance of a third violation. The customer shall be allowed a period of 5 days following issuance of the written notice to correct the third violation before a fourth violation will be issued.

4. For a fourth violation the District shall issue a written notice of fact of such violation to the customer when a third violation has not been corrected within a period of 5 days following issuance of the third violation notice. A fine in the amount of $100.00 shall be added to the customer's water bill upon issuance of a fourth violation. The customer shall be allowed 5 days following issuance of the written notice to correct the fourth violation before a fifth violation will be issued.

5. For a fifth violation the District shall issue a written notice of fact of such violation to the customer when a fourth violation has not been corrected within a period of 5 days following issuance of the fourth violation notice. A fine in the amount of $200.00 shall be added to the customer's water bill upon issuance of a fourth violation. The customer shall be allowed 5 days following issuance of the written notice to correct the fifth violation before a sixth violation will be issued.

6. For a sixth violation, the District shall issue a written notice of fact of such violation to the customer when the fifth violation has not been corrected within a period of 5 days following issuance of the fifth violation notice. A fine of $500.00 per day shall be added to the customer's water bill following the issuance of the sixth violation notice until the violation is corrected.

Customers shall pay all water bills and fines in accordance with the due dates on their water bills. An Appeals Process is offered to customers that disagree with fines outlined in this section of the Policy. If the appeal is upheld in favor of the customer, appropriate monies will be refunded. Details of the appeals process are included in Section 4 of this Policy.

The District shall use the revenues derived from the implementation of this section of the Policy for water use efficiency programs and rebates.

Section 4. Appeals Process

Any customer may appeal the imposition of fines of this Policy, by filing a written request with the District's Water Use Efficiency Department for an appeals hearing. The District must receive the request within 30 days of the final notice. A request for a hearing shall set forth, in detail, all facts supporting the request.

The District's Water Use Efficiency Department shall, within 15 days of receiving a request for an appeal hearing provide written notice to the customer of the hearing date, time, and place. The hearing date shall not be more than 30 days from the mailing of such notice by certified mail, unless a later date is agreed to by the customer.

At the hearing, a Water Use Efficiency Department representative will represent the District. The customer will have the opportunity to present information supporting his or her position concerning the required irrigation evaluation or penalty charges. After the hearing, the Water Use Efficiency Department shall deliver a written report to the General Manager setting forth findings of fact, conclusions, and a recommendation on whether to uphold, modify, or reverse the original fines. Upon receipt of the written report, the General Manager shall issue his decision within 15 calendar days of the hearing. The written decision of the General Manager shall be sent to the customer by certified mail. The General Manager's decision shall be final on the 16th day after it is mailed, unless a request for a hearing is filed with the Board of Directors no later than 5:00 p.m. on the 15th day following such mailing.

Any customer may appeal a decision made by the General Manager, prior to the date that the General Manager's order becomes final, by filing a written request for a hearing with the Board of Directors. The request for the Board of Directors' hearing shall set forth in detail all the issues in dispute and all facts supporting the request. No later than 30 days after receipt of the request for a hearing, the Board of Directors shall either set the matter for a hearing, or deny the request for the hearing. Whether to grant or deny a request for a hearing on an appeal to the General Manager's decision shall be within the sole discretion of the Board of Directors.

If required, a hearing shall be held by the Board of Directors within 30 days of the date the request for a hearing was granted, unless a later date is agreed to by the customer and the Board of Directors. The Board of Directors shall make a determination whether to uphold, modify, or reverse the General Manager's decision. The order of the Board of Directors shall be final upon its adoption. The written decision and order of the Board of Directors shall be sent to the customer by certified mail within 15 days after the close of the hearing.

If the matter is not heard within the required time, due to actions or inactions of the customer or the Board of Director's decision to deny the request for the hearing, the General Manager's decision shall be final.

Section 5. Variance Conditions

A variance may be issued by the District, in writing, to grant a temporary variance for water uses otherwise prohibited under this Policy if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance, and under the following conditions:

1. Compliance with this Policy cannot be technically accomplished during the duration of a water supply shortage or other condition for which the Policy is in effect.

2. Alternative methods or technology used as part of District sanctioned trial or test study can be implemented which will achieve the same level of reduction in water use.

3. Doctor-approved health circumstances, illness or injury will be considered on a case-by-case basis.

4. No variances will be issued, beginning in Shortage Stage 3b of the WSCP, for filling swimming pools, establishing or expanding a landscape area, leaks not repaired within 48 hours, and existing outdoor water budgets.

5. No variances will be issued, beginning in Shortage Stage 3b of the WSCP, for filling swimming pools, establishing or expanding a landscape area, leaks not repaired within 48 hours, and existing outdoor water budgets.

6. Variances will be considered for health and safety issues only in Shortage Stages 4 and 5.

A written variance shall be accepted by the District, and may be denied at the sole discretion of the District. The following information must be provided:

1. Name, contact phone number, service address, and customer account number of petitioner.

2. Purpose of water use (e.g., domestic, commercial, agriculture).

3. Specific provision(s) of the Policy from which the petitioner is requesting relief.

4. Detailed statement as to how the provision of the Policy adversely affects the petitioner or what damage or harm will occur.

5. Description of the relief requested.

6. Period of time for which the variance is sought.

7. Any alternative water use restrictions (e.g., indoor use) that the petitioner is taking or proposes to take to meet the intent of the Policy.

Section 6. Technical Assistance

The District will provide technical assistance to customers who wish to improve water use efficiency. This technical assistance may include the provision of materials a customer can use to perform a self-assessment and a "Water Use Efficiency Evaluation" conducted by the District. Customers may request these services by contacting the District's Water Use Efficiency Department. Receiving technical assistance from the District does not preclude customers from any fines assessed for violations.

Section 7.Definitions of Terms

Appellant - means the customer appealing a decision of the District for relief from the requirements of this Policy.

Appeal Process - refers to a set of procedures allowing an appellant the opportunity to present facts and details, supporting his or her position concerning fines of this policy.

Best Management Practices – defines the best and most proven water conservation methods for urban water users in California.

Board of Directors - means the Board of Directors of the Rancho California Water District.

California Friendly® Landscapes – refers to landscape that features low-water using plants, state-of-the-art irrigation and controllers, sustainable landscaping techniques/ maintenance plan.

Common Area – means that portion of a common interest development or of a property owned or managed by a homeowners' association or a community service organization or similar entity that is not assigned or allocated to the exclusive use of the occupants of an individual dwelling unit within the property.

Common Interest Development – means any of the following: (a) a community apartment project; (b) a condominium project; (c) a planned development; (d) a stock cooperative.

Community Service Organization or Similar Entity – means a nonprofit entity, other than an association, that is organized to provide services to residents of the common interest development or to the public.

Community Space – means an area designated by a property owner or a governmental agency to accommodate human foot traffic for civic, ceremonial, or other community events or social gatherings.

Customer - means any person, firm, partnership, association, corporation, or local political entity using water obtained from the water system of Rancho California Water District.

Disadvantaged Community – means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

District – refers to Rancho California Water District.

Evaluation Check List – will differ between the residential customer and the commercial customer. The appropriate Evaluation Check List will be provided by District to the customer for the purpose of evaluating the cause of water waste.

Excessive Runoff - over irrigation of landscaped areas, leaks, or any other type of action that would cause water to flow into any gutter, streets, or alleys.

Functional Turf – means a ground cover surface of turf located in a recreational use area or community space. Turf enclosed by fencing or other barriers to permanently preclude human access for recreation or assembly is not functional turf.

Homeowners' Association – means a nonprofit corporation or unincorporated association created for the purpose of managing a common interest development.

Nonfunctional Turf – means any turf that is not functional turf, and includes turf located within street rights-of-way and parking lots.

Potable Water – means water that is suitable for human consumption.

Recreational Use Area – means an area designated by a property owner or a governmental agency to accommodate human foot traffic for recreation, including, but not limited to, sports fields, golf courses, playgrounds, picnic grounds, or pet exercise areas.

Variance Conditions – refers to a conflict requesting a temporary variation for water use.

Waste - means any unreasonable or non-beneficial use of water, or any unreasonable method of use of water, including, but not limited to, the specific uses prohibited and restricted by this policy as hereinafter set forth.

Water Use Classification of Landscape Species (WUCOLS) – is a guide to help landscape professionals identify irrigation water needs of landscape species. It can be used either for the selection of species or to assist in developing irrigation schedules. It is not intended to be used as a required or approved list by RCWD for selection of plant species – the WUCOLS guide is provided by District upon request.

Water Use Efficiency Evaluation Report – is a standard of site data collections to efficiently evaluate the performance of an irrigation system.

In times of drought or water supply cutbacks, provisions of this Policy may be modified in accordance with the Metropolitan Water District of Southern California's Water Surplus and Drought Management Plan and/or Water Supply Allocation Plan, as well as Rancho California Water District's Water Shortage Contingency Plan, or action taken by the Board of Directors.

Appendix H: Calculation of Baseline and Target under SBx7-7

Appendix H
Calculation of Baseline and Target under Senate Bill 7 of Special Extended Legislative Session 7 (SBx7-7)

Senate Bill 7 of Special Extended Legislative Session 7 (SBx7-7) introduced standards for water use. These standards are based on gallons per capita per day and target a reduction in gallons per capita per day to be achieved by the year 2020. SBx7-7 was alternatively called “20 by 2020” which encapsulated the idea that the intent of the regulation was to reduce water use 20 percent by the year 2020. The following text has been taken from the Rancho Water District 2020 Urban Water Management Plan. The purpose of the text is to document how the SBx7-7 baseline and targets were calculated. Rancho Water met its target in 2020 and annexations since 2020 did meet the standard to recalculate compliance with the target in the 2025 Urban Water Management Plan.

From the Rancho Water 2020 Urban Water Management Plan:

2.4 Existing and Target Per Capita Water Use

As required by SB X7-7, the Water Conservation Bill of 2009, this section identifies the water use targets in 2015 and 2020 to demonstrate a 20% reduction in per capita water use by 2020. Included are calculations of the baseline gross water use expressed as per capita daily water use (gallons per capita per day, or GPCD), baseline and target population, and year 2020 urban water use target. This section includes a description of how the District calculated its baseline and target per capita water demands, in accordance with Method No. 1 described in "Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use" (DWR Methodologies, 2011).

The 2015 and 2020 GPCD targets were established in past UWMPs and are not being adjusted or modified as part of this UWMP. Background information on the establishment of the baseline periods and targets is provided below.

The District has completed the SB X7-7 Verification Form and other tables required by DWR, attached as Appendix E, and summarized in Tables 2-5 and 2-6 of this chapter.

2.4.1 Updating Calculations from 2010 UWMP

In the 2010 UWMP, Rancho Water developed urban water use targets for 2020 and an interim water use target for 2015. In 2015 the District elected to update the population of the SB X7-7 calculation by utilizing the DWR Population Tool, which affected:

- Baseline gross water use and service area population;
- Baseline daily per capita water use;
- Urban water use target;
- Interim urban water use target; and
- Compliance year water use target.

2.4.2 Baseline Periods

Two baseline periods are to be determined during the calculation of the base daily per capita water use. The first is a continuous 10- to 15-year period used to calculate baseline per capita use, and the second is a continuous 5-year period used to determine whether the 2020 per capita water use target meets the legislation's minimum water use reduction requirements of at least a 5% reduction per capita water use.

The legislation allows the first continuous baseline period to increase from a 10-year to a 15-year base period, if the amount of recycled water delivered in 2008 was 10% or greater of total water demand. As shown in Table 2-5, the District's recycled water use in 2008 represented only 5.3% of total water demand; therefore, under the legislation, the District may not use anything greater than a 10-year base period.

2.4.2.1 Determination of the 10 Year Baseline Period (Baseline GPCD)

The District selected the years 1996 through 2005 as its 10-year base period. Table 2-6 presents the base daily per capita water use data for the years 1996 through 2005. Included are population, gross water use in AFY, and gallons per day, which are then utilized to calculate baseline GPCD. Gross water use was calculated using total potable water that entered the distribution system less water for agricultural use, and less water conveyed to others.

Table 2-1
SBX7-7 Baseline Period Ranges
(DWR Table SBx7-7 Table 1)

Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	77,356	Acre Feet
	2008 total volume of delivered recycled water	4,099	Acre Feet
	2008 recycled water as a percent of total deliveries	5.30%	Percent
	Number of years in baseline period[1]	10	Years
	Year beginning baseline period range	1996	
	Year ending baseline period range[2]	2005	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	
	Year ending baseline period range[3]	2008	

[1]The 2008 recycled water percent is less than 10%, so the first baseline period is a continuous 10-year period.

[2]The ending year must be between December 31, 2004 and December 31, 2010.

[3]The ending year must be between December 31, 2007 and December 31, 2010.

Table 2-2
SBX7-7 Baseline Gallons Per Capita Per Day (GPCD)
(DWR Table SBx7-7 Table 5)

Baseline Year		Service Area Population	Annual Gross Water Use (AF)	Daily Per Capita Water Use (GPCD)
10- to 15-Year Baseline GPCD				
Year 1	1996	57,731	27,248	421
Year 2	1997	62,836	32,566	463
Year 3	1998	69,665	27,040	347
Year 4	1999	78,279	32,864	375
Year 5	2000	85,804	45,477	473
Year 6	2001	93,367	40,372	386
Year 7	2002	100,531	41,448	368
Year 8	2003	105,741	40,152	339
Year 9	2004	113,645	45,369	356
Year 10	2005	120,033	42,348	315
10- to 15-Year Average Baseline GPCD				***384***
5-Year Baseline GPCD				
Year 1	2004	113,645	45,369	356
Year 2	2005	120,033	42,348	315
Year 3	2006	125,518	45,800	326
Year 4	2007	129,519	52,367	361
Year 5	2008	133,052	49,582	333
5-Year Average Baseline GPCD				***338***

2.4.2.2 Determination of the 5 Year Baseline Period (Target Confirmation)

The District selected the years 2004 through 2008 as its 5-year base period. Table 2-6 presents the base daily per capita water use data for the years 2004 through 2008. The calculation of the 5-Year base daily per capita water use confirmed that the selected 2020 target meets the minimum water use reduction requirements. This 5-year comparison calculation is a continuous period ending no earlier than December 31, 2007 and no later than December 31, 2010. The average GPCD of the 5 years, multiplied by 0.95, is the minimum water use reduction. The 2020 per capita water use target cannot exceed this value. If the 2020 target established using the selected method is greater than the comparison 5-year GPCD, then the 5-year value determined below becomes the District's 2020 water use target. Rancho Water's 2020 target of 307 is less than 321, or 95% of the 5-year base daily per capita water use.

2.4.3 Service Area Population

The District was unable to use 2010 census data for its baseline population calculations in the 2010 UWMP, as the full census data set was not available until 2012. As part of the 2015 UWMP the District recalculated the baseline population using 2000 and 2010 census data. This affected the baseline and target GPCD values calculated in the 2010 UWMP, which were modified accordingly in the 2015 UWMP.

2020 Census data was not available for use in this UWMP. As described in Section 1.8, for the purposes of projecting future water use the District used the 2020 Southern California Association of Governments (SCAG) Tier 2 Transportation Analysis Zones (TAZ) GIS data. Based on SCAG data the service area had 151,412 persons in FY2020. For the purposes of calculating compliance with the Water Conservation Bill of 2009 (SBx7-7) Rancho Water is using the population estimate from the DWR Population Tool (155,132 persons). Output from the DWR Population Tool is provided in Appendix E.

2.4.4 Gross Water Use

DWR provided detailed guidance for gross water calculations in the 2011 Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (DWR Methodologies). Gross water use is a measure of water that enters the distribution system of the supplier over a 12-month period with the following allowable exclusions:

- Recycled water delivered within the service area1;
- Indirect recycled water;
- Water placed into long-term storage (surface or groundwater);
- Water conveyed to another urban supplier;
- Water delivered for agricultural use; and
- Process water.

During the District's 10-year and 5-year baseline periods, as well as 2020, the District did not provide water for indirect recycled water use or industrial process water, and the District did not place any water into long-term storage. The District did not include recycled water delivered within the service area in the gross water calculations and also quantified and excluded:

- Water conveyed to another urban supplier; and
- Water delivered for agricultural use.

As presented in Section 2.2.7, the District provides water services to properties within the EMWD and WMWD retail water service areas. Water is provided by EMWD to the District on an annual basis for the wheeling of water to the following EMWD water customers: Pechanga Tribe, Nakayama Park, Lake Skinner Park, and Glen Oaks. Similarly, water is provided by WMWD to the District on an annual basis for wheeling water to WMWD's water customer, Rock Mountain. The quantity of water conveyed to these agencies was quantified for each FY and included in the District's gross water calculations, as presented in Table 2-6.

As presented in Section 2.2.6, the District provides water for commercial agricultural irrigation. In accordance with CWC Section 10608.12 (g) (4), consideration of agricultural water use is the same for calculations of gross water use for determining base daily per capita water use and compliance daily per capita water use. Delivery volumes were

[1] Recycled water use is excluded from all calculations of gross water in the SB X7-7 Tables. Water suppliers are not required to report their recycled water use, nor demonstrate any reduction in recycled water use for purposes of SB X7-7.

based on account records and meter data for connections in the distribution system used to supply water for the commercial production of agricultural crops or livestock.

The standard used to identify distribution system connections supplying agricultural water uses is based on subdivision (b) of Section 535 of the CWC. Commercial agricultural production is defined by the U.S. Department of Agriculture and the Census Bureau as any place from which $1,000 or more of agricultural products (crops and livestock) were sold or normally would have been sold during the year. For the purposes of calculating gross water use, retail nursery water use is not considered to be an agricultural water use.

Agriculture in the District is primarily vineyards, avocado, and citrus trees. The Temecula Valley is a premiere wine grape growing area in California, which, coupled with other high-value crops, requires a consistent irrigation supply. Major agricultural acreage is concentrated in the southwestern and eastern portions of the District.

The District quantified the water delivered for agricultural water use for the District's 10-year and 5-year baseline periods, as well as for FY19/20. Agricultural water use is captured in accounts categorized as "Agricultural" and "Agricultural Residential. "Agricultural" meters are for irrigation. Water usage in the "Agriculture Residential" accounts consists of water needs for agriculture, water needs for the inside of the house, and water needs for any ornamental landscape.

In past years the District estimated a breakdown of water use in the Agricultural Residential category by examining meter data for each connection. In these past years the total water use for each account was allocated between water demand for agriculture, water demand for the inside of the house, and water demand for any ornamental landscape. The indoor portion of the water allocation was based on 55 gallons per person, per day, similar to all District residential accounts. The landscape coefficient was set as 1,398 per hundred cubic feet (HCF) per year for each irrigated acre, with the number of irrigated landscape acres for which an agricultural account will receive a water allocation limited to 10% of the account's irrigated agricultural acreage, up to a maximum of 75,000 sq. ft. The sum of the agriculture demands for all Agriculture Residential accounts was divided by the total water demand for all Agriculture Residential accounts. Accordingly, the District calculated that 88.8% of the potable water demand from the Agriculture Residential sector was for agricultural use, with the remaining 11.2% of water demand, comprised of landscape and domestic use.

For the purposes of the year 2020 SBx7-7 calculation, 88.8% of the potable water demand from the Agriculture Residential sector is calculated as being for agricultural use, with the remaining 11.2% of water demand, comprised of landscape and domestic use, allocated to the Single-Family sector. This is reflected in Table 2-7.

Table 2-3
SBX7-7 Annual Gross Water Use
(DWR Table SBx7-7 Table 4)

Baseline Year		Volume Into Distribution System	Deductions		Annual Gross Water Use
			Exported Water	Water Delivered for Agricultural Use	
10- to 15-Year Baseline - Gross Water Use					
Year 1	1996	57276	89	29,939	27,248
Year 2	1997	61958	141	29,251	32,566
Year 3	1998	47373	113	20,220	27,040
Year 4	1999	61260	122	28,274	32,864
Year 5	2000	80000	174	34,349	45,477
Year 6	2001	70650	130	30,148	40,372
Year 7	2002	74080	180	32,452	41,448
Year 8	2003	69378	146	29,080	40,152
Year 9	2004	79144	181	33,594	45,369
Year 10	2005	66380	160	23,872	42,348
10- to 15-year Baseline Average - Gross Water Use					***37,488***
5-Year Baseline - Gross Water Use					
Year 1	2004	79,144	181	33,594	45,369
Year 2	2005	66,380	160	23,872	42,348
Year 3	2006	76,669	204	30,665	45,800
Year 4	2007	87,521	219	34,935	52,367
Year 5	2008	77,356	586	27,188	49,582
5-year Baseline Average - Gross Water Use					***47,093***
2020 Compliance Year - Gross Water Use					
2020		***50,560***	***176****	***15,423***	***34,961***

*Reflects wheeled water, from July 30, 2020 Engineering and Operations Committee data

2.4.5 Baseline Daily Per Capita Water Use

The final step in baseline calculations is determining the daily per capita water use in each of the baseline years. The GPCD for the District's baseline years, and 2020, are presented in the Table 2-8. GPCD was calculated by dividing annual gross water use by the service area population.

Table 2-4
SBX7-7 Gallons Per Capita per Day
(DWR Table SBx7-7 Table 5)

Baseline Year		Service Area Population	Annual Gross Water Use (AF)	Daily Per Capita Water Use (GPCD)
10- to 15-Year Baseline GPCD				
Year 1	1996	57,731	27,248	421
Year 2	1997	62,836	32,566	463
Year 3	1998	69,665	27,040	347
Year 4	1999	78,279	32,864	375
Year 5	2000	85,804	45,477	473
Year 6	2001	93,367	40,372	386
Year 7	2002	100,531	41,448	368
Year 8	2003	105,741	40,152	339
Year 9	2004	113,645	45,369	356
Year 10	2005	120,033	42,348	315
10- to 15-Year Average Baseline GPCD				***384***
5-Year Baseline GPCD				
Year 1	2004	113,645	45,369	356
Year 2	2005	120,033	42,348	315
Year 3	2006	125,518	45,800	326
Year 4	2007	129,519	52,367	361
Year 5	2008	133,052	49,582	333
5-Year Average Baseline GPCD				***338***
2020 Compliance Year GPCD				
2020		***155,132***	***34,961***	***201***

2.4.6 2015 and 2020 Targets

The year 2020 target was established in the 2015 UWMP. To assist the reader, this section reviews how the 2020 target was established.

Table 2-9 presents a water use target comparison of the 5-Year Daily Per Capita Water Use maximum allowed GPCD target and Method 1 GPCD target, as per the requirements of SB X7-7. The 2020 target calculated with Method 1 (80% of 10-Year Baseline GPCD) is 307 GPCD. The maximum allowed 2020 target calculated from 95% of the 5-Year Daily Per Capita Water Use is 321 GPCD. Accordingly, 307 GPCD is the District's confirmed 2020 target.

Table 2-5
2020 Target Compliance
(DWR Table SBx7-7 Table 7-F)

10-yr Base Daily Per Capita Water Use (GPCD)	2020 Target Calculated with Method 1 (80% of 10-Year Baseline)	5-yr Base Daily Per Capita Water Use (GPCD)	Maximum Allowed GPCD Target (95% of 5-Year Base)	Confirmed 2020 Target (GPCD)
384	307	338	321	307

Table 2-6
Baselines and Target Summaries
(DWR Table 5-1)

Baseline Period	Start Year	End Year	Average Baseline GPCD	Confirmed 2020 Target
10-year	1996	2005	384	307
5-Year	2004	2008	338	-

As shown in Table 2-11, the District is in compliance with the 2020 Target, with an actual 2020 GPCD of 201. DWR has allowed for optional adjustments to the 2020 GPCD, including extraordinary events, economic adjustments, and weather normalization. The District made no such adjustments to the 2020 GPCD, as compliance was achieved without these factors.

Table 2-7
SBX7-7 2020 Compliance
(DWR Table SBx7-7 Table 8 and DWR Table 5-2)

Actual 2020 GPCD	Target GPCD	Total Adjustments	Adjusted 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?
201	307	0	307	Yes



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Rancho Water

COMMITTEE INFORMATION

ENGINEERING AND OPERATIONS COMMITTEE

April 30, 2026

ITEM 2.A: **Review of 2025 Water Loss Audit Results**

RESPONSIBLE/LEAD STAFF MEMBER(S):

Wendie Heie, P.E., Principal Engineer

RECOMMENDATIONS:

This item is provided for the Engineering and Operations Committee's (Committee) information.

DISCUSSION:

California Senate Bill 555 requires urban retail water suppliers to submit an annual, validated water loss audit to the California Department of Water Resources (DWR), with exemptions for suppliers delivering less than 3,000 acre-feet annually or serving fewer than 3,000 service connections. As a fiscal-year operator, Rancho California Water District (Rancho Water/District) submits its audit by January 1 following each fiscal year. These audits are prepared in accordance with DWR requirements and follow the American Water Works Association (AWWA) Water Loss Audit methodology.

A draft FY 2024–25 Water Loss Audit was initially prepared in January 2026. However, staff discovered inconsistencies in key input datasets primarily related to system input volumes and billed consumption values derived from multiple data sources. Following identification of these issues, staff conducted a comprehensive review of all audit inputs, reconciled discrepancies, and implemented standardized data preparation procedures. The audit was subsequently revised, independently validated, and resubmitted to DWR in full compliance with regulatory requirements.

The audit incorporated comprehensive system data including total water supply volumes, distribution system characteristics (mainline lengths, service connection counts, and average operating pressure), and financial metrics such as operating costs, customer retail unit charge, and variable production cost. Historical performance, including the most current fiscal year, is summarized in Table 1 (attached). Key audit documents supporting this report include the FY2025 Validated Water Audit, the FY2025 Utility Certification Report, and the FY2025 Validator Certificate Report.

Key Results – FY 2024/2025 Water Loss Audit

Key highlights from the most recent audit include:

- **Total system input volume:** 51,124.74 acre-feet
- **Total non-revenue water**: 3,114.74 acre-feet
- **Non-revenue water as a percent of operating cost:** 3.1%
- **Water loss Percentage:** 5.86% (4.92 % real loss and 0.94 % apparent loss)
- **Data Validity Score:** 65 (Tier III)
- **Real loss (gal/conn/day**): 49.4

These results indicate that the District continues to maintain a high-performing distribution system relative to industry benchmarks and State performance standards. Non-revenue water remains low both as a percentage of total system input and as a percentage of the cost of operating the system (3.1%).

Real losses, while slightly elevated from prior reporting, are consistent with overall system conditions and reflect the impact of improved data accuracy resulting from the audit reconciliation process. The District's real loss performance of 49.4 gallons per connection per day is slightly above its individual State performance standard of 48.6 gpcd, highlighting the need for continued focus on leakage management and infrastructure investment.

Apparent losses remain low (0.94% of system input); however, the updated audit results reinforce that measurement accuracy is a critical component of overall water loss performance. In response, the District is reinvigorating its customer meter replacement program as a primary strategy to reduce apparent losses and improve confidence in billed consumption data. This effort is expected to yield both operational and financial benefits through improved revenue capture and more accurate demand characterization.

Ongoing Mitigation Strategies

During FY 2024–25, the District continued its long-standing strategy of proactive water loss control through targeted infrastructure investment, enhanced monitoring, and improved data quality. Key actions undertaken or continued during the reporting year include:

- Ongoing deployment of acoustic leak detection equipment, including fixed loggers and correlators, in areas with historically higher break rates.
- Continued customer meter replacement efforts to improve measurement accuracy and reduce apparent losses.
- Continued refinement of production and import volume accounting, improving consistency and audit defensibility
- Continued tracking and documentation of meter testing and calibration results for large production and import meters to support data validity improvements.

These efforts have contributed to the District's ability to maintain low non-revenue water levels while improving confidence in reported audit inputs.

Future Water Loss Reduction and Data Improvement Efforts
Looking ahead, the District will continue to focus on both loss reduction and data quality enhancement. Planned and ongoing initiatives include:

- Expansion of leak detection coverage using newly acquired fixed loggers in targeted high-risk areas.
- Implementation of a pipeline renewal program, with planned investment of approximately $5 million per year over the next five years, to replace aging pipelines and reduce long-term leakage risk.
- Continued expansion of meter testing and replacement programs for both production and customer meters.
- Use of data-driven and AI-assisted tools to prioritize leak detection and monitoring efforts based on system risk and likelihood of failure.

These actions will form the basis for continued improvement in audit data validity and long-term reductions in real and apparent water losses

ALTERNATIVES:

Not applicable

FISCAL ANALYSIS:

Not applicable

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

1. Table 1 Summary of Annual Water Loss Audits_2025_04_30_2026
2. Rancho California Water District -FY2025- Validated Water Audit.03.2026
3. Rancho California Water District FY2025 - Validator Certification Report.03.2026
4. Rancho California Water District-FY2025-Utility Certification Report.03.26

Table 1 –Summary of Annual Water Loss Audits

Fiscal Year	Total Water Loss (AF)	Total Water Supplied (AF)	Water Loss (%)			Annual Cost of Non-Revenue Water ($)		Data Validity Score
			Real Loss (%)	Apparent Loss (%)	Total Loss (%)			
CY 2016*	2,487	54,057	3.6%	1.0%	4.6%	2.8	Million	59
2017-18	3,198	58,154	4.5%	1.0%	5.5%	2.8	Million	59
2018-19	2,036	48,371	3.2%	1.0%	4.2%	3.7	Million	64
2019-20	2,974	50,424	4.9%	1.0%	5.9%	2.5	Million	64
2020-21	3,801	57,037	5.7%	1.0%	6.7%	3.8	Million	69
2021-22	3,580	54,077	5.7%	0.9%	6.6%	4.9	Million	69
2022-23	1,991	43,231	3.4%	1.0%	4.4%	2.3	Million	65
2023-24	3,177	42,872	4.6%	2.8%	7.4%	4.2	Million	57
2024-2025	**2,994**	**51,125**	**4.92%**	**0.94%**	**5.86%**	**4.5**	**Million**	**65**

*- Reporting for 2016 was for the Calendar Year

AWWA Free Water Audit Software v6.0

FWAS v6.0

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This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format and is not meant to take the place of a full-scale, comprehensive water audit format. Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targeting loss reduction levels. This tool contains several separate worksheets. Sheets can be accessed using the tabs at the bottom of the screen, or by clicking the TOC links below.

Table of Contents (TOC)

Start Page	The current sheet. Enter contact information and basic audit details.
Worksheet	Enter the required data on this worksheet to calculate the water balance and data grading.
Interactive Data Grading	Answer questions about operational practices for each audit input, and the data validity grades will automatically populate.
Dashboard	Review NRW components, performance indicators and graphical outputs to evaluate the results of the audit.
Notes	Enter notes to explain how values were calculated, document data sources, and related information about data management practices.
Blank Sheet	By popular demand! A blank sheet. The world is your canvas.
Water Balance	The values entered in the Worksheet automatically populate the Water Balance.
Loss Control Planning	Use this sheet to interpret the results of the audit validity score and performance indicators.
Definitions	Use this sheet to understand the terms used in the audit process.
Service Connection Diagram	Diagrams depicting possible customer service connection line configurations.
Acknowledgements	Acknowledgements for development of the AWWA Free Water Audit Software v6.0.

AWWA Web Resources for Water Loss Control

https://www.awwa.org/Resources-Tools/Resource-Topics/Water-Loss-Control

Items referenced in the Free Water Audit Software v6.0 on the web:

- Data Grading Matrix v6.0
- Example Water Audit v6.0
- Water Audit Compiler v6.0
- AWWA Reports on Performance Indicators
- M36 Manual

Enter Basic Information

Name of Utility:	Rancho California Water District	
Name of Contact Person:	Wendie Heie	
Email:	heiew@ranchowater.com	
Telephone | Ext.:	(951)296-6900	6985
City/Town/Municipality:	Temecula	
State / Province:	California (CA)	
Country:	USA	
Audit Preparation Date:	Sep 09 2025	
Audit Year:	2024	
Audit Year Label:	Fiscal	(Fiscal, Calendar, etc)
Audit Period Start Date:	Jul 01 2024	
Audit Period End Date:	Jun 30 2025	
Volume Reporting Units:	Acre-feet	
Water System Structure:	Retail	
Water Type:	Potable Water	
System ID Number:	CA3310038	
Validator Name/ID:	Bill Christiansen	
Validator Email:	bill_christiansen@esource.com	
Estimated Total Population Served by Water Utility:	155,000	

Key of Input Acronyms

In order of appearance in the Worksheet

VOS	Volume from Own Sources
VOSEA	VOS Error Adjustment
WI	Water Imported
WIEA	WI Error Adjustment
WE	Water Exported
WEEA	WE Error Adjustment
BMAC	Billed Metered Authorized Consumption
BUAC	Billed Unmetered Authorized Consumption
UMAC	Unbilled Metered Authorized Consumption
UUAC	Unbilled Unmetered Authorized Consumption
SDHE	Systematic Data Handling Errors
CMI	Customer Metering Inaccuracies
UC	Unauthorized Consumption
Lm	Length of mains
Nc	Number of service connections
Lp	Average length of (private) customer service line
AOP	Average Operating Pressure
CRUC	Customer Retail Unit Charge
VPC	Variable Production Cost

Color Key User input | Calculated | Optional default

Guidance for the Worksheet

Choosing to enter unit of **percent** or **volume** (applies to VOSEA, WIEA, WEEA, CMI)

choose entry option:

1.00%	percent	*or*
	volume	25.000

Choosing to enter **default** or **custom input** (applies to UUAC, SDHE, UC)

choose entry option:

0.25%	default	*or*
	custom	75.000

Guidance for the Interactive Data Grading

Use acronym buttons in IDG header to navigate among inputs. Acronym Key above. White = needs answers, orange = complete, clear = not required. Example below.

VOS	VOSEA	WI	WIEA	WE	WEEA	BMAC	BUAC	UMAC	UUAC
SDHE	CMI	UC	Lm	Nc	Lp	AOP	CRUC	VPC	

After clicking an acronym button, answer all visible questions in the order they're presented, choosing best-fit answer

Grade will populate when all visible questions are complete for an input: **7**

The limiting criteria will be labeled along the right. If only 1 limiting criterion is shown, improving on that criterion will achieve a higher data grade. If multiple limiting criteria are shown, improving on *each* limiting criterion is necessary to achieve a higher data grade. A complete inventory of data grading criteria is available in the Data Grading Matrix v6.0 (see web resources)

Limiting

If you have questions or comments regarding this software please contact us at: wlc@awwa.org

AWWA Free Water Audit Software: Worksheet

FWAS v6.0
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Water Audit Report for: Rancho California Water District
Audit Year: 2024 | Jul 01 2024 - Jun 30 2025 | Fiscal

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

		n	g				n	g						
VOS	Volume from Own Sources:	n	g	3	31,251.200	Acre-ft/Yr	n	g	8		volume	74.380	acre-ft/yr	under-registration VOSEA
WI	Water Imported:	n	g	7	20,080.000	Acre-ft/Yr	n	g	10	0.00%	percent			WIEA
WE	Water Exported:	n	g	7	280.840	Acre-ft/Yr	n	g	3	0.00%	percent			WEEA

choose entry option:

WATER SUPPLIED: 51,124.740 Acre-ft/Yr

AUTHORIZED CONSUMPTION

		n	g				choose entry option:	
BMAC	Billed Metered:	n	g	9	48,010.000	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a		Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	n/a		Acre-ft/Yr		
UUAC	Unbilled Unmetered:	n	g	3	120.025	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 48,130.025 Acre-ft/Yr

WATER LOSSES

2,994.715 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

		n	g				choose entry option:		
SDHE	Systematic Data Handling Errors:	n	g	3	120.025	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	2	241.256	Acre-ft/Yr	0.50%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	120.025	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 481.306 Acre-ft/Yr

Real Losses

Real Losses: 2,513.409 Acre-ft/Yr

WATER LOSSES: 2,994.715 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 3,114.740 Acre-ft/Yr

SYSTEM DATA

		n	g				
Lm	Length of mains:	n	g	10	956.3	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	45,435		(active *and* inactive)
	Service connection density:				48	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp: n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP: Average Operating Pressure: n g 9 114.0 psi

COST DATA

		n	g					
CRUC	Customer Retail Unit Charge:	n	g	10	$2.10	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	10	$1,543.73	$/acre-ft	$145,137,235	$/yr (optional input)

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Customer Metering Inaccuracies (CMI)
3: Water Imported (WI)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:	10.0	gal/conn/day
Unit Real Losses[A]:	50.8	gal/conn/day
Unit Real Losses[D]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

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AWWA Free Water Audit Software: Dashboard

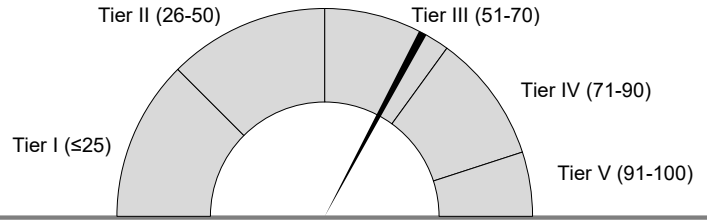
go to worksheet | go to grading | go to references

Water Audit Report for: Rancho California Water District **Audit Year:** 2024 **Fiscal** Jul 01 2024 - Jun 30 2025

Data Validity

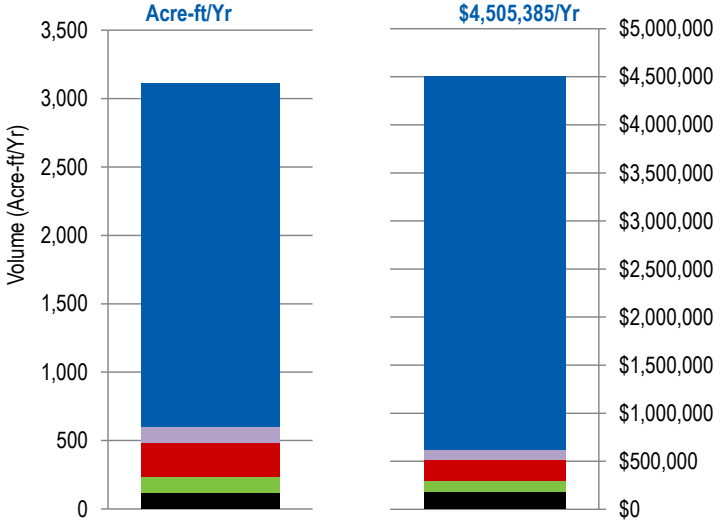
Data Validity Score: 65 **Data Validity Tier:** Tier III (51-70)

See Loss Control Planning for Tier Details



NRW Components Summary

Total Volume of NRW = 3,115 Acre-ft/Yr **Total Cost of NRW = $4,505,385/Yr**



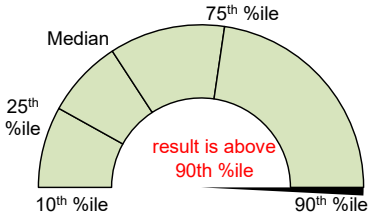
Real Losses
Systematic Data Handling Errors
Customer Metering Inaccuracies
Unauthorized Consumption
Unbilled Unmetered Auth Cons
Unbilled Metered Authorized Cons

	Volume Acre-ft/Yr	Value $/Yr	Basis of Valuation
Apparent Losses	481.3	$440,070	CRUC
Real Losses	2,513.4	$3,880,028	VPC
Unbilled Authorized Cons	120.0	$185,286	VPC
Non-Revenue Water	3,114.7	$4,505,385	Blended

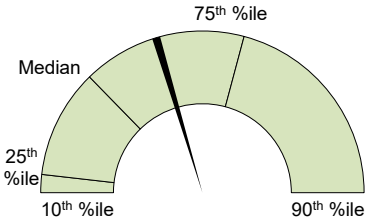
Key Performance Indicators

Actual KPI result — Target (see Worksheet)

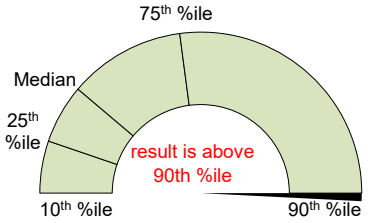
gauge %iles per validated industry ranges[2]



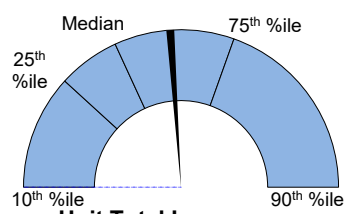
Total Loss Cost Rate
95.08 $/conn/year



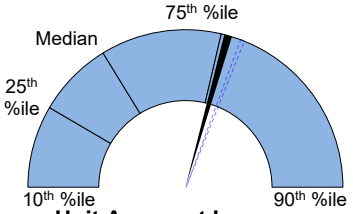
Apparent Loss Cost Rate
9.69 $/conn/year



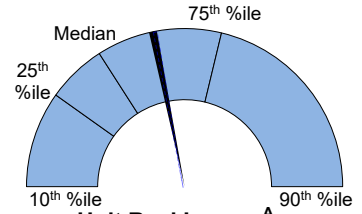
Real Loss Cost Rate
85.40 $/conn/year



Unit Total Losses
58.8 gal/conn/day

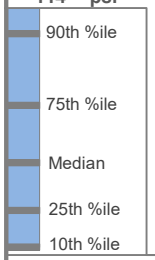


Unit Apparent Losses
9.5 gal/conn/day

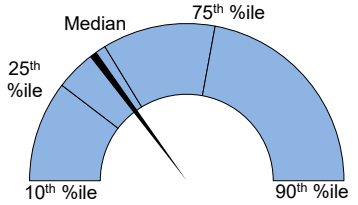


Unit Real Losses[A]
49.4 gal/conn/day

Average Operating Pressure
114 psi

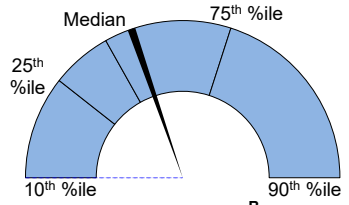


AOP is above 90th %ile



Infrastructure Leakage Index (ILI)
1.6 dimensionless

See UARL definition for additional guidance on the ILI



Unit Real Losses[B]
2,346 gal/mile/day

(UARL) Unavoidable Annual Real Losses 1,530.9 Acre-ft/Yr 30.1 gal/conn/day

Guidance Information for Key Performance

- The eight indicators shown are the recommended suite per the AWWA Water Loss Control Committee 2020 Position on KPIs[1].
- A suite of KPIs is necessary, as no single KPI can holistically communicate water loss performance for a given water system.
- See Table 1 below for Uses and Limitations for each KPI, excerpted from the AWWA Water Loss Control Committee Report (2020)[1], with naming conventions updated.
- Percentiles (%iles) shown on KPI gauges come from Level 1 validated data in the AWWA WLCC Reference Water Audit Dataset (2020)[2].
- KPI %iles shown above are not segregated by cohorts. Limited KPI data by cohorts may be found in WRF 4695 Guidance Manual, Appendix B (2019)[5].
- Actual KPI results that fall below 10th %ile or above 90th %ile do not necessarily imply error, but should be viewed with scrutiny.
- Percentiles not intended to imply targets. Targets may be input by user for operational KPIs, if desired, on Worksheet.
- See UARL and ILI in Definitions tab for discussion of size and pressure limitations.
- Systems that fall on the extreme ends of size or connection density should use caution when interpreting Unit Losses KPIs.

Table 1

Source: AWWA Water Loss Control Committee Report (2020)[1], with naming conventions updated

2020 AWWA Water Audit Method – Water Audit Outputs and Key Performance Indicators: Uses and Limitations

Type	Indicator	Description	Suitable Purposes					Uses and Limitations	Principal Users
			Assessment	Bench-Marking	Target-Setting	Planning	Tracking		
Attribute	Apparent Loss Volume	Calculated by Free Water Audit Software	✓				✓	Assess loss level	Utility, Regulators
	Apparent Loss Cost	Calculated by Free Water Audit Software	✓				✓	Assess cost loss level	Utility, Regulators
	Real Loss Volume	Calculated by Free Water Audit Software	✓				✓	Assess loss level	Utility, Regulators
	Real Loss Cost	Calculated by Free Water Audit Software	✓				✓	Assess loss cost level	Utility, Regulators
	Unavoidable Annual Real Loss (UARL)	Calculated by Free Water Audit Software	✓				✓	Reveal theoretical technical low level of leakage	Utility, Regulators
Volume	Unit Apparent Losses (vol/conn/day)	Strong and understandable indicator for multiple users.	✓	✓	✓	✓	✓	Used for performance tracking and target-setting	Utility, Regulators
	Unit Real Losses[A] (vol/conn/day)	Strong and understandable indicator for multiple users.	✓	✓	✓	✓	✓	Used for performance tracking and target-setting	Utility, Regulators, Policy Makers
	Unit Real Losses[B] (vol/pipeline length/ day)	Strong and understandable indicator for use by utilities with low connection density.	✓	✓	✓	✓	✓	Data collection and assessment of systems with "low" connection density	Utility, Regulators, Policy Makers
	Unit Total Losses (vol/conn/day) **New KPI**	Strong and understandable indicator, suitable for high-level performance measurement.	✓				✓	High level indicator for trending analysis. Not appropriate for target-setting or benchmarking	Utilities, Customers
	Infrastructure Leakage Index (ILI)	Robust, specialized ratio KPI; can be influenced by pressure and connection density.	✓	✓			✓	Benchmarking after pressure management is implemented	Utilities
Value	Apparent Loss Cost Rate (value/conn/year) **New KPI**	Indicators with sufficient technical rigor. Provide the unit financial value of each type of loss, which is useful for planning and assessment of cost efficiency of water loss reduction and control interventions and programs.	✓			✓	✓	Data collection and assessment on AWWA indicators or contextual parameters to use in conjunction with Loss Cost Rates	Utilities, Regulators, Customers
	Real Loss Cost Rate (value/conn/year) **New KPI**		✓			✓	✓		Utilities, Regulators, Customers
Validity	Data Validity Tier (DVT)	Strong indicator of water loss audit data quality, if data has been validated. Tier provides guidance on priority areas of activity.	✓	✓		✓	✓	Assess caliber of data inputs of the water audit	Regulators, Utilities

AWWA Free Water Audit Software
Water Balance

FWAS v6.0

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Water Audit Report for: Rancho California Water District
Audit Year: 2024 Jul 01 2024 - Jun 30 2025
Data Validity Tier: Tier III (51-70)

		Water Exported (WE) (corrected for known errors) 280.840	Billed Water Exported			Revenue Water (Exported) 280.840
Volume from Own Sources (VOS) (corrected for known errors) 31,325.580	System Input Volume 51,405.580	Water Supplied 51,124.740	Authorized Consumption 48,130.025	Billed Authorized Consumption 48,010.000	Billed Metered Consumption (BMAC) (water exported is removed) 48,010.000	Revenue Water 48,010.000
					Billed Unmetered Consumption (BUAC) 0.000	
				Unbilled Authorized Consumption 120.025	Unbilled Metered Consumption (UMAC) 0.000	Non-Revenue Water (NRW) 3,114.740
					Unbilled Unmetered Consumption (UUAC) 120.025	
			Water Losses 2,994.715	Apparent Losses 481.306	Systematic Data Handling Errors (SDHE) 120.025	
					Customer Metering Inaccuracies (CMI) 241.256	
					Unauthorized Consumption (UC) 120.025	
Water Imported (WI) (corrected for known errors) 20,080.000				Real Losses 2,513.409	Leakage on Transmission and/or Distribution Mains Not broken down	
					Leakage and Overflows at Utility's Storage Tanks Not broken down	
					Leakage on Service Connections Not broken down	

AWWA Free Water Audit Software: Determining Water Loss Standing

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Water Audit Report for: Rancho California Water District
Audit Year: 2024 Jul 01 2024 - Jun 30 2025
Data Validity Tier: Tier III (51-70)

Water Loss Control Planning Guide

Functional Focus Area	Water Audit Data Validity Tier (Score Range)				
	Tier I (1-25)	**Tier II (26-50)**	**Tier III (51-70)**	**Tier IV (71-90)**	**Tier V (91-100)**
Audit Data Collection	Launch auditing and loss control team; address supply metering deficiencies	Analyze business process for customer metering and billing functions and water supply operations; Identify data gaps; improve supply metering	Establish/revise policies and procedures for data collection	Refine data collection practices and establish as routine business process	Annual water audit is a reliable gauge of year-to-year water efficiency standing
Short-term loss control	Research information on leak detection programs; Begin flowcharting analysis of customer billing system	Conduct loss assessment investigations on a sample portion of the system: customer meter testing, leak survey, unauthorized consumption, etc	Establish ongoing mechanisms for customer meter accuracy testing, active leakage control and infrastructure monitoring	Refine, enhance or expand ongoing programs based upon economic justification	Stay abreast of improvements in metering, meter reading, billing, leakage management and infrastructure rehabilitation
Long-term loss control		Begin to assess long-term needs requiring large expenditure: customer meter replacement, water main replacement program, new customer billing system or AMR/AMI system	Begin to assemble economic business case for long-term needs based upon improved data becoming available through the water audit process	Conduct detailed planning, budgeting and launch of comprehensive improvements for metering, billing or infrastructure management	Continue incremental improvements in short-term and long-term loss control interventions
Target-setting			Establish long-term apparent and real loss reduction goals (+10 year horizon)	Establish mid-range (5 year horizon) apparent and real loss reduction goals	Evaluate and refine loss control goals on a yearly basis
Benchmarking			Preliminary Comparisons - can begin to rely upon with PIs for performance comparisons for real losses	Performance Benchmarking with PIs is meaningful in comparing real loss standing	Identify Best Practices/ Best in class; PIs are very reliable as real loss performance indicators for best in class service

For validity scores of 50 or below, the shaded blocks should not be focus areas until better data validity is achieved.

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Item Name	Description
Apparent Losses Find	= systematic data handling errors + customer metering inaccuracies + unauthorized consumption Apparent Losses include all types of inaccuracies associated with customer metering (worn meters as well as improperly sized meters or wrong type of meter for the water usage profile) as well as systematic data handling errors (meter reading, billing, archiving and reporting), plus unauthorized consumption (theft or illegal use). NOTE: Over-estimation of Apparent Losses results in under-estimation of Real Losses. Under-estimation of Apparent Losses results in over-estimation of Real Losses.
AUTHORIZED CONSUMPTION Find	= billed metered + billed unmetered + unbilled metered + unbilled unmetered consumption The volume of metered and/or unmetered water taken by registered customers, the water utility's own uses, and uses of others who are implicitly or explicitly authorized to do so by the water utility; for residential, commercial, industrial and public-minded purposes. Typical retail customers' consumption is tabulated usually from established customer accounts as billed metered consumption, or - for unmetered customers - billed unmetered consumption. These types of consumption, along with billed water exported, provide revenue potential for the water utility. Typically a lag will exist between timing for reading of supply meters and reading of customer meters. A lag-time correction should typically be calculated to account for this. **Be certain to tabulate the water exported volume as a separate component and do not "double-count" it by including in the billed metered consumption component as well as the water exported component.** Unbilled authorized consumption occurs typically in non-account uses, including water for fire fighting and training, flushing of water mains and sewers, street cleaning, watering of municipal gardens, public fountains, or similar public-minded uses. Occasionally these uses may be metered and billed (or charged a flat fee), but usually they are unmetered and unbilled. In the latter case, the water auditor may use a default value to estimate this quantity, or implement procedures for the reliable quantification of these uses. This starts with documenting usage events as they occur and estimating the amount of water used in each event. (See Unbilled Unmetered Authorized Consumption)
View Service Connection Diagram **Average Length of (private) Customer Service Line (Lp)** Find	This is the average length of underground customer service line, Lp, that is owned and maintained by the customer; from the point of ownership transfer to the customer water meter, or building line (if unmetered). The quantity is one of the data inputs for the calculation of Unavoidable Annual Real Losses (UARL), which serves as the denominator of the performance indicator: Infrastructure Leakage Index (ILI). The value of Lp is multiplied by the number of customer service connections to obtain a total length of customer owned piping in the system. The purpose of this parameter is to account for the unmetered service line infrastructure that is the responsibility of the customer for arranging repairs of leaks that occur on their lines. In many cases leak repairs arranged by customers take longer to be executed than leak repairs arranged by the water utility on utility-maintained piping. Leaks run longer - and lose more water - on customer-owned service piping, than utility owned piping. If the customer water meter exists near the ownership transfer point (usually the curb stop located between the water main and the customer premises) this distance is zero because the meter and transfer point are the same. This is the often encountered configuration of customer water meters located in an underground meter box or "pit" outside of the customer's building. The Free Water Audit Software asks a "Yes/No" question about the meter at this location. If the auditor selects "Yes" then this distance is set to zero and the data grading score for this component is set to 10. If water meters are typically located inside the customer premise/building, or properties are unmetered, it is up to the water auditor to estimate a system-wide average Lp length based upon the various customer land parcel sizes and building locations in the service area. Lp will be a shorter length in areas of high density housing, and a longer length in areas of low density housing and varied commercial and industrial buildings. General parcel demographics should be employed to obtain a total Lp length (Lc) and subsequently a weighted average Lp length for the entire system. Refer to the "Service Connection Diagram" worksheet for a depiction of the service line/metering configurations that typically exist in water utilities. This worksheet gives guidance on the determination of the Average Length, Lp, for each configuration.
Average Operating Pressure (AOP) Find	This is the average pressure in the distribution system that is the subject of the water audit. If the water utility is compiling the water audit for the first time, the average pressure can be approximated, but with a low data grading. In subsequent years of auditing, effort should be made to improve the accuracy of the average pressure quantity. This will then qualify the value for a higher data grading. In the absence of a hydraulic model, the average pressure may be approximated by obtaining readings of static water pressure from a representative sample of fire hydrants or other system access points evenly located across the system. A weighted average of the pressure can be assembled; but be sure to take into account the elevation of the fire hydrants, which typically exist several feet higher than the level of buried water pipelines. If your water utility has an up-to-date and calibrated hydraulic model of the water distribution system, it can be utilized to obtain a very accurate quantity of average pressure. However using the average pressure of all “nodes” in the system model is not necessarily the most accurate way to calculate the average operating pressure. This is especially true if there are significant pressure differences throughout the system, and the “nodes” are not evenly distributed throughout the distribution system. The most accurate calculation is to obtain the average pressure that each pipe segment experiences. The way to do this is to calculate the pressure at each end of the pipe. Then calculate the average of those two values and multiply this average value by the length of that pipe. This must be calculated for all pipe segments in the model. Finally calculate the sum of all of these values and and divide by the total pipe length. This effectively calculates a weighted average of pressure over the total pipe length. For low density systems (<32 connections/mile), average mains pressures at the service connection or curb stop may have greater influence and should be considered.
Billed Authorized Consumption	All consumption that is billed and authorized by the utility. This may include both metered and unmetered consumption. See "Authorized Consumption" for more information.

Item Name	Description
Billed Metered Authorized Consumption (BMAC) Find	All metered consumption which is billed to retail customers, including all groups of customers such as domestic, commercial, industrial or institutional. **It does NOT include water supplied to neighboring utilities (water exported) which is metered and billed. Be sure to subtract any consumption for exported water sales that may be included in these billing roles. Water supplied as exports to neighboring water utilities should be included only in the Water Exported component.** The metered consumption data can be taken directly from billing records for the water audit period. The accuracy of yearly metered consumption data can be refined by including an adjustment to account for customer meter reading lag time since not all customer meters are read on the same day of the meter reading period. However additional analysis is necessary to determine the lag time adjustment value, which may or may not be significant.
Billed Unmetered Authorized Consumption (BUAC) Find	All billed consumption which is calculated based on estimates or norms from water usage sites that have been determined by utility policy to be left unmetered. This is typically a very small component in systems that maintain a policy to meter their customer population. However, this quantity can be the key consumption component in utilities that have not adopted a universal metering policy. **This component should NOT include any water that is supplied to neighboring utilities (water exported) which is unmetered but billed. Water supplied as exports to neighboring water utilities should be included only in the Water Exported component.**
Customer Metering Inaccuracies (CMI) Find	Apparent water losses caused by the collective under-registration of customer water meters. Many customer water meters gradually wear as large cumulative volumes of water are passed through them over time. This causes the meters to under-register the flow of water. This occurrence is common with smaller residential meters of sizes 5/8-inch and 3/4 inch after they have registered very large cumulative volumes of water, which generally occurs only after periods of years. For meters sized 1-inch and larger - typical of multi-unit residential, commercial, institutional and industrial accounts - meter under-registration can occur from wear or from the improper application of the meter; i.e. installing the wrong type of meter or the wrong size of meter, for the flow pattern (profile) of the consumer. For instance, many larger meters have reduced accuracy at low flows. If an oversized meter is installed, most of the time the routine flow will occur in the low flow range of the meter, and a significant portion of it may not be registered. It is important to properly select and install all meters, but particularly large customer meters, size 1-inch and larger. The auditor has two options for entering data for this component of the audit. The auditor can enter a percentage under-registration (typically an estimated value), this will apply the selected percentage to the two categories of metered consumption to determine the volume of water not recorded due to customer meter inaccuracy. Note that this percentage is a composite average inaccuracy for all customer meters in the entire meter population. The percentage will be multiplied by the sum of the volumes in the Billed Metered and Unbilled Metered components. Alternatively, if the auditor has substantial data from meter testing activities, he or she can calculate their own loss volumes, and this volume may be entered directly. Note that a value of zero will be accepted but is not recommended, as all metered systems tend to have some degree of inaccuracy. A positive value should be entered. A value of zero in this component is generally valid only if the water utility does not meter its customer population. The formula for caculating a volume of CMI from a percentage input is as follows: CMI volume = (BMAC+UMAC)/(1-CMI%)-(BMAC+UMAC)
Customer Retail Unit Charge (CRUC) Find	The Customer Retail Unit Charge represents the volumetric portion of the total charges that customers pay for water service. The CRUC does not include fixed charges. This unit charge cost is applied routinely to the components of Apparent Loss, since these losses represent water reaching customers but not (fully) paid for. Since most water utilities have a rate structure that includes a variety of different charges costs based upon class of customer, a volume-weighted average of water sold at each unique rate should be calculated to determine a single composite charge that should be entered into this cell. Finally, the weighted average charge should also include additional charges for sewer, storm water or biosolids processing, but only if these charges are based upon the volume of potable water consumed. For water utilities in regions with limited water resources and a questionable ability to meet the drinking water demands in the future, the Customer Retail Unit Charge Cost might also be applied to value the Real Losses; instead of applying the Variable Production Cost to Real Losses. In this way, it is assumed that every unit volume of leakage reduced by leakage management activities will be sold to a customer. Note: the Free Water Audit Software allows the user to select the units that are charged to customers (either $/1,000 gallons, $/hundred cubic feet, or $/1,000 litres) and automatically converts these units for purpose of calculating Apparent Loss valuations. The monetary units are United States dollars, $.
Infrastructure Leakage Index (ILI) Find	The ratio of the Current Annual Real Losses (Real Losses) to the Unavoidable Annual Real Losses (UARL). This performance indicator is dimensionless. **NOTES ON THE UARL AND ILI:** 1. This Free Water Audit Software version 6 presents the calculated UARL and ILI for systems of all sizes and all pressures. Some published research is now available on predicting how UARL is likely to be modified when modeling low leakage limits in systems that are very small (< 3000 conn), or have very low average pressures, or have very high pressures (aka boundary cases). Inherent over- or under- estimation of UARL volume may exist in these boundary cases, as they operate at or near the limits of the UARL model assumptions. More widespread application and understanding of system specific corrections to the UARL model in these boundary cases is now likely to occur, but are not included in the FWAS at the time of this publication. Caution is advised when using the standard UARL modeled value (and subsequently the ILI) for boundary cases. In boundary cases, the ILI may still be considered a general Performance Indicator, but not used as an absolute performance measurement or for benchmark comparisons. 2. The UARL term is based on average operating pressure in a given audit year, and a utility's current pressure conditions may not be optimized. Thus, ILI should always be interpreted with some measure of pressure, and only used for tracking progress if all justifiable pressure management has already been completed.

Item Name	Description
Length of Mains (Lm) Find	Length of all pipelines (except service connections) in the system starting from the point of system input metering (for example at the outlet of the treatment plant). It is also recommended to include in this measure the total length of fire hydrant lead pipe. Hydrant lead pipe is the pipe branching from the water main to the fire hydrant. Fire hydrant leads are typically of a sufficiently large size that is more representative of a pipeline than a service connection. The average length of hydrant leads across the entire system can be assumed if not known, and multiplied by the number of fire hydrants in the system, which can also be assumed if not known. This value can then be added to the total pipeline length. Total length of mains can therefore be calculated as: Length of Mains, miles = (total pipeline length, miles) + [{(average fire hydrant lead length, ft) x (number of fire hydrants)} / 5,280 ft/mile] or Length of Mains, kilometres = (total pipeline length, kilometres) + [{(average fire hydrant lead length, metres) x (number of fire hydrants)} / 1,000 metres/kilometre]
NON-REVENUE WATER Find	= Apparent Losses + Real Losses + Unbilled Metered Consumption + Unbilled Unmetered Consumption. This is water which does not provide revenue potential to the utility.
Number of Service Connections (Nc) Find	Number of customer service connections, extending from the water main to supply water to a customer. This includes the actual number of pressurized piping connections, including fire connections, **whether active or inactive**. This may differ substantially from the number of customers (or number of accounts). **Note: this number does not include the pipeline leads to fire hydrants. The total length of piping supplying fire hydrants should be included in the "Length of mains" input, and excluded from the Number of service connections input.**
Real Losses Find	Physical water losses from the pressurized system (water mains and customer service connections) and the utility's storage tanks, up to the point of customer consumption. In metered systems this is the customer meter, in unmetered situations this is the first point of consumption (stop tap/tap) within the property. The annual volume lost through all types of leaks, breaks and overflows depends on frequencies, flow rates, and average duration of individual leaks, breaks and overflows.
Revenue Water	Those components of System Input Volume that are billed and have the potential to produce revenue.
Service Connection Density Find	=number of customer service connections / length of mains
Systematic Data Handling Errors (SDHE) Find	Apparent losses caused by accounting omissions, errant computer programming, gaps in policy, procedure, and permitting/activation of new accounts; and any type of data lapse that results in under-stated customer water consumption in summary billing reports. **Systematic Data Handling Errors occur as a customer consumption volume and can result in a direct loss of revenue potential. Water utilities can find "lost" revenue by keying on this component.** Utilities typically measure water consumption volumes registered by water meters at customer premises. The meter should be read routinely (ex: monthly) and the data transferred to the Customer Billing System, which generates and sends a bill to the customer. Data Transfer Errors result in the registered consumption volume value being less than the actual consumption volume, creating an apparent loss. Such error might occur from illegible and mis-recorded hand-written readings compiled by meter readers, inputting an incorrect meter register unit conversion factor in the automatic meter reading equipment, or a variety of similar errors. Apparent losses also occur from Data Analysis Errors in the archival and data reporting processes of the Customer Billing System. Inaccurate estimates used for accounts that fail to produce a meter reading are a common source of error. Billing adjustments may award customers a rightful monetary credit, but do so by creating a negative value of consumption volume, thus under-stating the actual consumption. Account activation lapses may allow new buildings to begin using water for months without meter readings and billing. Poor permitting and construction inspection practices can result in a new building water service commencing without a billing account, a water meter and meter reading; i.e., the customer is unknown to the utility's billing system. Close auditing of the permitting, metering, meter reading, billing and reporting processes of the water consumption data trail can uncover data management gaps that create volumes of systematic data handling error. Utilities should routinely analyze customer billing records to detect data anomalies and quantify these losses. For example, a billing account that registers zero consumption for two or more billing cycles should be checked to explain why usage has seemingly halted. Given the revenue loss impacts of these losses, water utilities are well-justified in providing continuous oversight and timely correction of data transfer errors & data handling errors. If the water auditor has not yet gathered detailed data or assessment of systematic data handling error, it is recommended that the auditor apply the default value of 0.25% of the Billed Authorized Consumption volume. However, if the auditor has investigated the billing system and its controls, and has well validated data that indicates the volume from systematic data handling error is substantially higher or lower than that generated by the default value, then the auditor should enter a quantity that was derived from the utility investigations and select an appropriate grading. Negative or zero values are not allowed for this audit component. Note: occasionally billed consumption volumes for a customer account may be over-stated due to issues of double-counting an account or applying an over-stated meter multiplier. The possibility of such occurrences should be explored in the data validation process, particularly if billed authorized consumption volumes for the year, or for any sub-group of customers (by classification or meter size), appears to be inordinately high. It is recommended to correct any such errors in the billed consumption total for the year, rather than consider these volumes part of Systematic Data Handling Error.
Total annual operating cost (optional input) Find	*This input has been made optional, as it is no longer used in calculating a Performance Indicator. Auditors are welcome to continue to track this input as desired.* These costs include those for operations, maintenance and any annually incurred costs for long-term upkeep of the drinking water supply and distribution system. It should include the costs of day-to-day upkeep and long-term financing such as repayment of capital bonds for infrastructure expansion or improvement. Typical costs include employee salaries and benefits, materials, equipment, insurance, fees, administrative costs and all other costs that exist to sustain the drinking water supply. Depending upon water utility accounting procedures or regulatory agency requirements, it may be appropriate to include depreciation in the total of this cost. This cost should not include any costs to operate wastewater, biosolids or other systems outside of drinking water.

Item Name	Description
Unauthorized Consumption (UC) Find	Includes water illegally withdrawn from fire hydrants, illegal connections, bypasses to customer consumption meters, or tampering with metering or meter reading equipment; as well as any other ways to receive water while thwarting the water utility's ability to collect revenue for the water. Unauthorized consumption results in uncaptured revenue and creates an error that understates customer consumption. In most water utilities this volume is low and, if the water auditor has not yet gathered detailed data for these loss occurrences, it is recommended to use the default value of 0.25% of the Billed Authorized Consumption volume. However, if the auditor has investigated unauthorized occurrences, and has well validated data that indicates the volume from unauthorized consumption is substantially higher or lower than that generated by the default value, then the auditor should enter a quantity that was derived from the utility investigations. Note that a value of zero will not be accepted since all water utilities tend to have some volume of unauthorized consumption occurring in their system.
Unavoidable Annual Real Losses (UARL) Find	The UARL is a theoretical reference value representing the technical low limit of leakage for well managed systems in good condition, with aggressive active leakage control. It is a key variable in the calculation of the Infrastructure Leakage Index (ILI). UARL (gallons) = (5.41Lm + 0.15Nc + 7.5Lc) x P x 365 d/year, or UARL (litres) = (18.0Lm + 0.8Nc + 25.0Lc) x P x 365 d/year where: Lm = length of mains (miles or kilometres) Nc = number of customer service connections Lp = the average length of customer service connection piping (feet or metres) (see the Worksheet "Service Connection Diagram" for guidance on deterring the value of Lp) Lc = total length of customer service connection piping (miles or km) Lc = Nc X Lp (miles or kilometres) P = Average operating pressure (psi or metres) (see Average Operating Pressure definition) **NOTES ON THE UARL AND ILI:** 1. This Free Water Audit Software version 6 presents the calculated UARL and ILI for systems of all sizes and all pressures. Some published research is now available on predicting how UARL is likely to be modified when modeling low leakage limits in systems that are very small (< 3000 conn), or have very low average pressures, or have very high pressures (aka boundary cases). Inherent over- or under- estimation of UARL volume may exist in these boundary cases, as they operate at or near the limits of the UARL model assumptions. More widespread application and understanding of system specific corrections to the UARL model in these boundary cases is now likely to occur, but are not included in the FWAS at the time of this publication. Caution is advised when using the standard UARL modeled value (and subsequently the ILI) for boundary cases. In boundary cases, the ILI may still be considered a general Performance Indicator, but not used as an absolute performance measurement or for benchmark comparisons. 2. The UARL term is based on average operating pressure in a given audit year, and a utility's current pressure conditions may not be optimized. Thus, ILI should always be interpreted with some measure of pressure, and only used for tracking progress if all justifiable pressure management has already been completed.
Unbilled Authorized Consumption	All consumption that is unbilled, but still authorized by the utility. This includes Unbilled Metered Authorized Consumption (UMAC) + Unbilled Unmetered Authorized Consumption (UUAC). See "Authorized Consumption" for more information.
Unbilled Metered Authorized Consumption (UMAC) Find	Metered consumption which is authorized by the water utility, but, for any reason, is deemed by utility policy to be unbilled. This might for example include metered water consumed by the utility itself in treatment or distribution operations, or metered water provided to civic institutions free of charge. **It does not include water supplied to neighboring utilities (water exported) which may be metered but not billed.**
Unbilled Unmetered Authorized Consumption (UUAC) Find	Any kind of Authorized Consumption which is neither billed nor metered. This component typically includes water used in activities such as fire fighting, flushing of water mains and sewers, street cleaning, fire flow tests conducted by the water utility, etc. In most water utilities it is a small component. This component does NOT include water supplied to neighboring utilities (water exported) which is unmetered and unbilled – an unlikely case. Also, if any potable water used at a water treatment plant is tapped from a location upstream of the meter(s) used to determine the Volume from Own Sources in the audit, this is outside of the boundary of the audit and should therefore not be included as part of Unbilled, Unmetered Authorized Consumption. This component has many sub-components of water use which may not yet be quantified. The default is 0.25% of the Billed Authorized Consumption volume (BMAC + BUAC), and is recommended for temporary use if customized estimates are not yet available, with recommendation to begin tracking and estimating these volumes for the next audit. Note that a value of zero is not permitted, since all water utilities likely have some volume of water in this component occurring in their system.
Units and Conversions	The user may develop an audit based on one of three unit selections: 1) Million Gallons (US) 2) Megalitres (Thousand Cubic Metres) 3) Acre-feet Once this selection has been made in the instructions sheet, all calculations are made on the basis of the chosen units. Should the user wish to make additional conversions, a unit converter is provided below (use drop down menus to select units):

Item Name	Description
	Enter Units: 100 Million Gallons (US) = 306.888329 Acre-feet (conversion factor = 3.0689)
Variable Production Cost (VPC) (applied to Real Losses) Find	The cost to produce and supply the next unit of water (e.g., $/million gallons). This cost can include both short-run and long-run marginal costs. See the VPC data grading questions on IDG tab for examples of short-run and long-run marginal costs that may be included. It is common to apply the VPC unit cost to the volume of Real Losses. However, if water resources are strained and the ability to meet future drinking water demands is in question, then the water auditor may be justified in applying the Customer Retail Unit Charge to the Real Loss volume, rather than applying the Variable Production Cost.
Volume from Own Sources (VOS) Find	The volume of water withdrawn (abstracted) from water resources (rivers, lakes, streams, wells, etc) controlled by the water utility, and then treated for potable water distribution. Most water audits are compiled for utility retail water distribution systems, so this volume should reflect the amount of treated drinking water that entered the distribution system. Often the volume of water measured as treated effluent of the treatment works is slightly less than the volume measured at the raw water source, since some of the water is used in the treatment process. Thus, it is useful if flows are metered at the effluent of the treatment works. Water treatment plants are also often supplied potable drinking water and therefore are a "customer" of the water utility. If the service connection line serving the water treatment plant is downstream of treated water effluent flowmeters, this water should be metered and billed as billed authorized consumption. In this case, this volume of water does not enter into any calculations for Volume from Own Sources. If the service connection line suppling potable water to the treatment plant is upstream of treated water effluent flowmeters, then this water is considered "process" water and included with calculations accounting for process water use. If metering exists only at the raw water source, an adjustment for water used in the treatment process should be included to account for water consumed in treatment operations such as filter backwashing, basin flushing and cleaning, plant potable water consumption (if the supply is drawn upstream of effluent flowmetering.) and similar uses. If the audit is conducted for a wholesale water agency that sells untreated water, then this quantity reflects the measure of the raw water, typically metered at the source.
Volume from own sources: error adjustment Find	An estimate or measure of the degree of inaccuracy that exists in the master (production) meters measuring the annual Volume from own Sources, and any error in the data trail that exists to collect, store and report the summary production data. This adjustment is a weighted average number that represents the collective error for all master meters for all days of the audit year and any errors identified in the data trail. Meter error can occur in different ways. A meter or meters may be inaccurate by under-registering flow (did not capture all the flow), or by over-registering flow (overstated the actual flow). Data error can occur due to data gaps caused by temporary outages of the meter or related instrumentation. All water utilities encounter some degree of inaccuracy in master meters and data errors in archival systems are common. Enter a positive percentage or volume, then select 'under-registration' or 'over-registration' from the drop-down immediately adjacent. **See Water Supplied Error Adjustments definition for guidance on how to calculate this input.**
Water Exported (WE) Find	The Water Exported volume is the bulk water conveyed or sold by the water utility to neighboring water systems that exists outside of their service area. Typically this water is metered at the custody transfer point of interconnection between the two water utilities. Usually the meter(s) are owned by the water utility that is selling or transfering the water: i.e. the exporter. If the water utility who is compiling the annual water audit sells or transfers bulk water in this manner, they are an exporter of water. Note: The Water Exported volume is typically sold to wholesale customers who are charged a wholesale rate that is different than retail rates charged to the retail customers existing within the service area. Many state regulatory agencies require that the Water Exported volume be reported to them as a quantity separate and distinct from the retail customer billed consumption. For these reasons - and others - the Water Exported volume is always quantified separately from Billed Authorized Consumption in the standard water audit. **Be certain not to "double-count" this quantity by including it in both the Water Exported box and the Billed Metered Consumption box of the water audit Worksheet. This volume should be included only in the Water Exported box.**
Water Exported: Error Adjustment (WEEA) Find	An estimate or measure of the volume by which the Water Exported volume is incorrect. This adjustment is a weighted average that represents the collective error for all of the metered and archived exported flow for all days of the audit year. Meter error can occur in different ways. A meter may be inaccurate by under-registering flow (did not capture all the flow), or by over-registering flow (overstated the actual flow). Error in the metered, archived data can also occur due to data gaps caused by temporary outages of the meter or related instrumentation. All water utilities encounter some degree of error in their metered data, particularly if meters are aged and infrequently tested. Occasional errors also occur in the archived data. Enter a positive percentage or volume, then select 'under-registration' or 'over-registration' from the drop-down immediately adjacent. If regular meter accuracy testing is conducted on the meter(s) - which is usually conducted by the water utility selling the water - then the results of this testing can be used to help quantify the meter error adjustment. Corrections to data gaps or other errors found in the archived data should also be included as a portion of this meter error adjustment. **See Water Supplied Error Adjustments definition for guidance on how to calculate this input.**
Water Imported (WI) Find	The Water Imported volume is the bulk water purchased to become part of the Water Supplied volume. Typically this is water purchased from a neighboring water utility or regional water wholesale supplier, and is metered at the custody transfer point of interconnection between the two water utilities. Usually the meter(s) are owned by the water supplier selling the water to the utility conducting the water audit. The water supplier selling the bulk water usually charges the receiving utility based upon a wholesale water rate.

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American Water Works Association
Dedicated to the World's Most Important Resource®

AWWA Free Water Audit Software - Version 6.0
developed by the
Water Loss Control Committee of the American Water Works Association
December 2020

World Water Loss Day
4th December

This software is intended to serve as a basic tool to compile a preliminary, or "top-down", water audit. It is recommended that users also refer to the current edition of the AWWA M36 Publication, Water Audits and Loss Control Programs, for detailed guidance on compiling a comprehensive, or "bottom-up", water audit using the same water audit methodology.

DEVELOPED BY:

Will Jernigan, PE	*Software Chair*	Cavanaugh
David Sayers		Black & Veatch
Kate Gasner		Water Systems Optimization
George Kunkel, PE		Kunkel Water Efficiency Consulting
Andrew Chastain-Howley, PG, MCSM		Black & Veatch

A special thanks to those members of the AWWA Water Loss Control Committee and other water industry stakeholders who assisted in the review and testing of this software.

REFERENCES:

1. Kunkel, G., G. Trachtman, A. Wyatt, and W. Jernigan. *Water Loss Control Committee Report: Key Performance Indicators for Non-Revenue Water—AWWA's 2020 Position*. 2020. Journal AWWA. https://awwa.onlinelibrary.wiley.com/doi/full/10.1002/awwa.1428
2. Kunkel, G. et al. *AWWA WLCC Reference Water Audit Dataset*. 2020. AWWA. Denver, CO.
3. *AWWA Water Audits and Loss Control Programs, M36 Publication.* 5th Edition, (forthcoming) 2021. AWWA. Denver, CO.
4. Trachtman G., A. Wyatt, et al. 2019. *Assessment of Performance Indicator for Non-Revenue Water Target Setting and Progress Tracking*. AWWA. Denver, CO.
5. Trachtman G., A. Wyatt, et al. 2019. *WRF 4695: Guidance on Implementing an Effective Water Loss Control Plan*. Water Research Foundation. Denver, CO.
6. Lambert, A. 2020. *Low ILIs and Small Systems.* Llandudno, UK. https://leakssuitelibrary.com
7. *Good Practices on Leakage Management, Main Report*. EU Reference Document. European Commission, Luxembourg. 2015.
   https://circabc.europa.eu/sd/a/1ddfba34-e1ce-4888-b031-6c559cb28e47/Good%20Practices%20on%20Leakage%20Management%20-%20Main%20Report_Final.pdf
   https://circabc.europa.eu/sd/a/ec13ae01-7800-4114-8d72-98827b509e18/Good%20Practices%20on%20Leakage%20Management%20-%20Case%20Study%20document._Final.pdf
8. Service Connection Diagrams courtesy of Ronnie McKenzie, WRP Pty Ltd.
9. Sturm, R., W. Jernigan, C. Stief, and D. Blackwell. *Level 1 Water Audit Validation Guidance Manual*. 2nd Edition, (forthcoming) 2021. Project #5057. Denver: Water Research Foundation.

Validator Provided

Certified Validation Report Template, Part A: Provided by Validator

Insert Logo (Optional)

Audit Information

Water System Name:	Rancho California Water District
Public Water System Identification (PWSID)[1] :	CA3310038

[1]List only 1 PWSID, which should match the PWSID on the FWAS Instructions Tab. For Special cases where multiple water systems are connected with permanent two-way interties, list those additional PWSIDs in the Notes below and describe the water distribution system(s) configuration.

PWSID and Special Water System Configuration Notes (Provided to Validator by Water System):

Audit Period Start Date:	7/1/2024
Validation Date:	12/10/2025
Sufficient Supporting Documents Provided:	Yes

Water System Representatives

Wendie Heie, Juan Gonzalez, Lance Vess, Robert Behrmann, Robert Kearney, Karrie Swaine, Vaishali

Validation Findings & Confirmation Statement

Key Audit Metrics:

Data Validity Score:	65	***Data Validity***	Tier III (51-70)	***Real Loss:***	49.4 gal/conn/day **or**	gal/mile/day
Non-revenue water as percent of cost of operating system:	3.10%			***Apparent Loss:***	9.5 gal/conn/day	
				ILI:	1.6	

Certification Statement by Validator:

This water loss audit report has been Level 1 validated per the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34.

All recommendations on volume derivation and Data Validity Grades were incorporated into the water audit:	Yes
If not, rejected recommendations are included here:	

Validator Information

Water Audit Validator Name:	Bill Christiansen
CA-NV AWWA WAV Certification Expiration Date:	9/11/2027

Email: bill_christiansen@esource.com

Qualifications: Water Audit Validator Certificate issued by the CA-NV Section of the AWWA

Utility Provided

Certified Validation Report Template, Part B: Provided by Utility

Water System Name:	Rancho California Water District
Public Water System Identification (PWSID) [2] ***:***	CA3310038

[2] List only 1 PWSID, which should match the PWSID on the FWAS Instructions Tab. For special cases where multiple water systems are connected with permanent two-way interties, those additional PWSIDs should be listed in the Notes Section on the Validator Certification to be submitted to DWR along with this Utility Certification form and the AWWA FWAS water loss audit.

Water Audit & Water Loss Improvement Steps:

1. Steps Taken:

Water System to identify steps taken in the preceding 3 years to increase data validity, reduce real loss, and reduce apparent loss as informed by the annual validated water audit (23 CCR Section 638.5(b)(3): Beginning in 2018, information identifying steps taken by the urban retail water supplier in the preceding 3 years to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses, as informed by the annual validated water audit. ***The very first item expected in each "Steps Taken" cell should be a 4 digit YEAR. Use ending year for fiscal years.***

Audit Period Start Date:	7/1/2024
Steps Taken The Year After Audit Data Year:	2026: Developed a formal pipeline renewal program, committing $5 million annually over the next five years to replace aging potable water pipelines. In parallel, the District developed AI-aided risk and likelihood-of-failure models to identify high-risk areas of the distribution system and prioritize monitoring and leak detection activities. Leak detection program was expanded by deploying newly purchased acoustic loggers in areas with historically high main break rates. Installation of the remaining loggers is ongoing and will further support an expanded, risk-based leak detection program focused on proactive monitoring of the most vulnerable portions of the system. Increasing rate of customer meter replacement with emphasis on high-volume/revenue meters. Additionally, District implemented process improvements to enhance audit accuracy and cross-departmental coordination, to include: alignment with finalized net
Steps Taken During the Audit Data Year:	2025: District replaced 786 customer meters and continued replacing propeller flow production meters with more reliable electromagnetic meters. Improved water accounting practices by refining the calculation of volume from own source, exported and imported water, transitioning from report-based processed data to direct SCADA-derived data; similarly used Cayenta data for billed consumption rather than Sales Report. This improves accuracy and reliability of two main inputs to the audit software.Also, continued to address real loss by monitoring pipelines in neighborhoods with historic high break rate and ongong implementation of our valve
Steps Taken the Year Before The Audit Data Year:	2024:Continued implementation of the District's strategic approach to water loss reduction. This centers on a comprehensive asset management program that combines: 1. Proactive infrastructure maintenance: prioritized pipeline and valve replacements to prevent potential leaks and infrastructure failures; completed corrosion survey of high-priority pipelines to indentify vulnerable pipeline sections; continued implementation of risk-based Customer Meter Asset Management Plan which addresses replacement of high demand meters; continued to use data from demand meters and updated orthophography to refine SmartWorks, a software program which helps the District identify malfunctioning meters. 2. Targeted leak detection: conducted enhanced acoustic leak detection guided by integrated satellite-based data; expanded the use of correlators to pinpoint leaks; initiated monitoring following mainline leaks repairs to promptly address leaks from repressurized pipes. 3. Targeted interventions: Focused on pipelines in vulnerable areas

2. Planned Steps

(OPTIONAL UNLESS *your audit reflects negative real losses or the cost of non-revenue water is greater than 100% of the operating costs. Your audit will not meet code requirements for these issues and you need to convey what steps you are planning in the coming year to address these issues. If you already know what steps you plan to take, you may list them here. If not, please prepare a response within 90 days (23 CCR Section 638.6[a]).*

3. Certification Statement by Utility Executive:

Executive Name (Print)	Executive Position	Date	Insert Signed image or DocuSign PDF as
Jason Martin	General Manager	3/20/2026	

"This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and California Water Code Section 10608.34 and has been prepared in accordance with the methods prescribed therein."

Guidance

Note: Please enter data in the grey cells only. Editing this template format may affect uploading it successfully into the DWR WUE Data Portal

2.B

Rancho Water

COMMITTEE INFORMATION

ENGINEERING AND OPERATIONS COMMITTEE

April 30, 2026

ITEM 2.B: **Project Status Report - March/April 2026**

RESPONSIBLE/LEAD STAFF MEMBER(S):

Nik Lyuber, Director of Engineering

RECOMMENDATIONS:

These reports are for the Engineering and Operations Committee's (Committee) review and information.

DISCUSSION:

The project status reports for March/April 2026 are enclosed herewith for your review.

ALTERNATIVES:

Not applicable

FISCAL ANALYSIS:

Not applicable

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

1. Project Status Report
2. Capital Projects Report

CONSTRUCTION PROJECT STATUS REPORT
April 2026

Equipping New Well No. 172 [D2008]

Construction of Well No. 172 improvements, including installation of one (1) 100 HP vertical turbine pumping unit (pump intake set at a depth of 160 feet below ground surface) with electric motor; installation of approximately 960 linear feet (LF) of well pump discharge piping, valves, and appurtenances; installation of and connection to existing below-grade well discharge piping at existing Well No. 153.

The contract was awarded to R.E. Chaffee Construction, Inc., with a current revised completion date of March 2026. Project is complete, final payment and closeout documents are being processed.

	Budget Cost	Cost to Date
Contract Amount	$2,145,900.00	$1,717,332.00
Change Orders	$100,747.29	$89,994.93
Total	$2,246,647.29	$1,807,326.93

Percent Change Order Costs = 4.69%

Construction is 80% complete.

Change Order No. 1		
Item 1	$10,752.36	Eyewash and shower station
Item 2	$89,994.93	Hollow Shaft Vertical Turbine Pumps
Change Order No. 2		
Item 1	$0.00	191 day time extension

Upper Valle De Los Caballos Regional Pump Station and Chlorine Contact Tank [D1903]

Project will construct the Upper Valle De Los Caballos Regional Pump Station. New facilities will augment capacity in the 1305 and 1380 Pressure Zones and will include the following: imported fill material to raise the site above the existing ground elevation, chlorine contact tank for groundwater disinfection, on-site sodium hypochlorite generation and feed system, forebay and transition pipelines to divert flow from wells to the contact tank and the new pump station, discharge piping, extension of the existing ammonia feed facility, and vertical turbine pumps enclosed within a concrete masonry unit building.

CMU subcontractor is installing CMU block. Second grout placement for remainder of the building has been placed. CMU for the next grout placement is in progress. 12" steel water line installation on De Portola Road is underway. Site duct bank excavation and conduit installation is in progress.

	Budget Cost	Cost to Date
Contract Amount	$30,761,600.00	$19,941,470.00
Change Orders	$188,986.58	-$162,645.43
Total	$30,950,586.58	$19,778,824.57

Percent Change Order Costs = 0.61%

Construction is 64% complete.

Change Order No. 1		
Item 1	$72,902.80	Early Entrance Work
Item 2	($39,033.15)	Hollow Shaft Vertical Turbine Pumps
Item 3	$2,010.88	Motor Actuated Valve Voltage
Item 4	($284,262.30)	Sound Wall Design Change
Item 5	$55,643.23	Epoxy Lining in Lieu of CML on Above Grade Piping
Item 6	$7,884.48	CCT Deck Penetration Detail
Item 7	$2,524.58	Access Hatch Curbs on CCT-Rebar Modification
Item 8	$3,868.68	Bulk Storage and Electrical Room SOG Reinforcement
Item 9	($3,101.31)	Credit for Hatches on CCT
Item 10	$10,606.77	Concrete Curbs for Hatches CCT
Item 11	$11,893.86	Overflow Structure Modifications
Item 12	$0.00	Four Weather Delay Days Through 06/30/2025
Change Order No. 2		
Item 1	$28,602.86	Medium voltage switchgear pads
Item 2	$14,237.63	SCE vault at service entrance
Change Order No. 3		
Item 1	$320,601.93	CMU Architectural Changes plus 25 calendar days
Item 2	($195,520.00)	30-36 Connection Scope De Portola Road
Item 3	$8,895.73	Clean up on Conquistador Place
Item 4	$4,482.72	Survey for Property Line
Item 5	$6,196.09	Removal of Unidentified Septic Tank
Item 6	$6,090.37	Removal of Underground Irrigation Lines
Item 7	$4,776.32	Larger Drain Basins
Item 8	$40,283.19	Roof Access Ships Ladder
Item 9	$4,015.40	Chlorine Analyzer AE_AIT 1-01 Cabinet AC
Item 10	$14,126.10	Well 175 Conduit and Pull Boxes
Item 11	$36,602.20	Elevation Change to 30" Pipeline
Item 12	$17,186.28	Medium voltage switchgear pads
Item 13	$12,384.40	Electrical Building Pull Box
Item 14	$7,309.20	Thickened Footing in Electrical Building
Item 15	$17,777.64	Additional Fill for SCE Pole
Item 16	$0.00	Three Weather Days Through 02/01/2026

Carancho Pump Station Expansion and Improvement [D2048]

Increasing the capacity and reliability of the existing Carancho Pump Station facility, which includes, but not limited to, replacing one (1) existing pump with a new 300 HP vertical turbine pump, installing two (2) new 300 HP vertical turbine pumps in the spare pump cans, and reusing one (1) existing 350 HP pump to provide a firm pumping capacity of 4,200 gpm [firm capacity is defined as capacity with three (3) pumps running and one (1) on standby]; constructing a new suction pipeline header, isolation valve, individual pump suction lines and isolation valves, and discharge lines and check and isolation valves and all appurtenances; constructing approximately 500 linear feet of a new 24-inch diameter cement mortar lined and coated steel pipeline in the concrete driveway, a temporary bypass pipeline, and removal of the existing 12-inch discharge pipeline; installing two (2) new surge tanks, air compressor, and associated piping and equipment including demolition of the existing surge tank; electrical improvements including a new 1,250 kW generator, discharge side flow meter, controls, conduits, wires, antenna, and transformer pad; demolition of the two (2) existing steel tanks; and miscellaneous site improvements.

Contract awarded to Myers & Sons Construction LLC. Contractor has installed the pumps, and majority of the mechanical and electrical improvements. Currently focusing on the 24-inch discharge piping within the driveway to the site.

	Budget Cost	Cost to Date
Contract Amount	$6,711,861.00	$4,656,004.76
Change Orders	-$54,638.57	-$82,324.15
Total	$6,657,222.43	$4,573,680.61

Percent Change Order Costs = -0.81%

Construction is 69% complete.

Change Order No. 1		
Item 1	$2,388.75	Flow meter changes
Item 2	$18,594.69	Isolate pump station during shutdown
Item 3	$24,120.05	Additional reducers and piping
Item 4	($234,643.45)	Change Diesel Engine Generator from Tier 4 to Tier 2
Change Order No. 2		
Item 1	$18,700.25	Air vacuum
Item 2	$3,565.53	VHS motors
Item 3	$100,637.61	Electrical reroute
Item 4	$11,998.00	ATS pad

UVDC In-Line Turbine Generator Hydroelectric [D2181] and Washington Avenue In-Line Turbine Generator Hydroelectric [D2217]

New hydroelectric generation facility including building, HVAC, lighting, site civil improvements District-furnished Francis in-line turbine generator package and all associated piping, bypass valve, turbine outlet valve, all electrical equipment, instrumentation, and all related work.

Contract awarded to Pacific Hydrotech Corporation. At the Washington site, EMWD piping has been installed and coated. Southern Electric is currently installing conduits and cables to pelton wheel. Contractor to begin installing hydraulic lines to hydraulic power unit at pelton wheel. At the UVDC site, contractor is working on installation of the colored course block on the building.

Construction Project Status Report
April 2026

	Budget Cost	Cost to Date
Contract Amount	$5,177,900.00	$3,367,075.00
Change Orders	$209,655.87	$79,978.34
Total	$5,387,555.87	$3,447,053.34

Percent Change Order Costs = 4.05%

Construction is 64% complete.

Change Order No. 1		
Item 1	$4,166.60	Modifications to location of 36" bypass piping at UVDC
Item 1	$16,973.95	Additional thrust restraint at intake piping at Washington
Change Order No. 2		
Item 1	$1,386.73	Upgrade to 2-inch Combo Air Vac at Washington
Item 2	($8,023.00)	Deduct Cooling Water Supply Panel at Washington
Item 3	$7,738.63	Added Underground Conduits from MCC to Control Panel at Washington
Change Order No. 3		
Item 1	$2,538.05	Magnetic Flowmeter Changes at UVDC
Item 2	$10,091.49	Install Motorized Harch at UVDC Roof
Item 3	$90,268.73	CMU Architectural Changes at UVDC
Item 4	$10,743.03	Ventilation Changes at UVDC
Item 5	$7,537.76	Reinforcement Changes at UVDC
Change Order No. 4		
Item 1	$2,050.81	Landing pad detail at Washington
Item 2	$9,564.48	Electrical equipment pad at turbine MCC at Washington
Item 3	$2,347.31	Hydraulic carrier piping at UVDC
Change Order No. 5		
Item 1	($531.60)	Credit for Energy Dissipator at Washington
Item 2	($10,682.00)	Removal of Ladder and Platform Framing at UVDC
Item 3	($3,464.00)	Removal of Access Hatch and Railing at UVDC
Item 4	$4,910.00	Acrylic Stucco at UVDC
Change Order No. 6		
Item 1	$35,937.02	Additional CMU Architectural Changes at UVDC
Change Order No. 7		
Item 1	$26,101.88	Washington Canyon HPU Interconnect

Drilling New Well Nos. 173, 174, and 175 [D2009, D2058, and D2121]

The Work includes the installation of a temporary 4-inch diameter highline and appurtenances for construction water; highline and settling tanks for discharge of well development water; construction survey staking; drilling, construction, development, testing, and disinfection of the proposed Production Well Nos. 173, 174, and 175; revegetation of disturbed areas; and site clean-up.

The contract was awarded to Nor-Cal Pump & Well Drilling. Work is complete, with contractor de-mobilized.

	Budget Cost	Cost to Date
Contract Amount	$2,849,000.00	$2,849,000.00
Change Orders	$202,737.50	$202,737.50
Total	$3,051,737.50	$3,051,737.50

Percent Change Order Costs = 7.12%

Construction is 100% complete.

Change Order No. 1		
Item 1	$0.00	Add 140 Calendar Days
Change Order No. 2		
Item 1	$202,737.50	Quantity adjustments to various bid items

Equipping New Well Nos. 173, 174, and 175 [D2009, D2058, and D2121]

Construction of Well Nos. 173, 174, and 175 improvements, including installation of three (3) vertical turbine pumping units with electric motors; installation of well pump discharge piping, valves, and appurtenances; installation of and connection to existing below-grade well discharge piping; installation of all associated electrical conduit, wiring, and appurtenances; installation of high-pressure relief and well blowoff piping, valves, and appurtenances; installation of well blowoff piping; installation of sodium hypochlorite storage and feed systems and appurtenances; installation of concrete slabs and below-grade piping for District furnished and installed pump water lubrication system panels and booster pumps; and all related work.

The contract was awarded to Canyon Springs Enterprises. All wells are in the startup phase, with production into the system expected to start in May.

	Budget Cost	Cost to Date
Contract Amount	$5,771,000.00	$3,862,425.00
Change Orders	-$125,659.58	-$20,479.06
Total	$5,645,340.42	$3,841,945.94

Percent Change Order Costs = -2.18%

Construction is 68% complete.

Change Order No. 1		
Item 1	$7,755.25	Additional survey and staking
Item 2	$1,886.34	Revised piping profiles
Item 3	$11,646.53	Revised ductbank
Item 4	($45,000.00)	Deletion of shade structures
Change Order No. 2		
Item 1	$30,525.36	Increase pump setting depth at Well No. 173
Item 2	$25,456.35	Increase pump setting depth at Well No. 174
Item 3	$20,637.14	Increase pump setting depth at Well No. 175
Item 4	$3,232.82	Extend MCC concrete slabs
Change Order No. 3		
Item 1	$10,721.32	Soil cement at Well 173 pond slopes
Item 2	$1,479.31	Best Drill and Pump mobilization and standby costs
Item 3	($194,000.00)	Removal of Bid Line Items 66-71

Joaquin Ranch Pump Station Disinfection System Improvements [D2199]

The work includes construction of the Joaquin Ranch Pump Station Disinfection System Improvements, which generally includes demolition of existing sodium hypochlorite generation and injection equipment and enclosures; construction of a masonry block building with HVAC system; installation of sodium hypochlorite and liquid ammonium sulfate injection systems, each consisting of a storage tank, metering pumps, piping, and valves; installation of water quality analyzers; construction of an above-grade static mixer with associated piping and valves; modification to the Pump Station suction piping; construction of approximately 100 linear feet (LF) 8-inch water pipeline; controls and instrumentation; lighting; and various site improvements.

The Board approved the award to the apparent low bidder, HPS Mechanical, Inc., with a bid of $2,315,391. The Notice of Award was sent on November 13, 2025. The preconstruction meeting was held on January 14, 2026. Contractor has mobilized, performed potholing and other preliminary activities. The existing building has been demolished and subgrade preparation for new building is in progress.

	Budget Cost	Cost to Date
Contract Amount	$2,315,391.00	$307,878.00
Change Orders	$0.00	$0.00
Total	$2,315,391.00	$307,878.00

Percent Change Order Costs = 0.00%

Construction is 13% complete.

Total change order costs to date as a percentage of the initially contracted amount for all projects:

Total Initial Contract Amount	Total Change Order Cost	Change Order Percentage	Target Range
$55,732,652	$521,829	0.94%	7% Max.

OPEN CAPITAL JOBS / ACTIVITIES

LIFE-TO-DATE BUDGET TO ACTUAL AMOUNTS THROUGH 03/31/2026

SUMMARY PROJECT	STATUS	DESCRIPTION	REVISED BUDGET	PAID TO DATE 03/31/2026	REMAINING BUDGET
CA2601	ACTIVE	FLAT BED PICKUP (F550)	100,000.00	88,402.41	11,597.59
CA2602	ACTIVE	3500 CHEVY REPLACING UNITS 220 AND 307	200,000.00	162,379.07	37,620.93
CA2603	ACTIVE	EV OFFSET VEHICLES FOR CARB (F150 LIGHTENING)	480,000.00	409,687.15	70,312.85
CA2605	ACTIVE	BIG BLUE WELDER	24,000.00	23,484.56	515.44
CA2606	ACTIVE	HYDRO EXCAVATOR	750,000.00	643,285.78	106,714.22
CA2607	ACTIVE	F550 VALVE TRUCK	190,000.00	186,361.03	3,638.97
CA2608	ACTIVE	CHEMICAL FEED PUMPS	65,000.00	0.00	65,000.00
CA2609	ACTIVE	CL10 HACH ONLINE ANALYZER / CONTROLLER DISPLAY	20,000.00	18,353.26	1,646.74
CA2610	ACTIVE	CL17 HACH ONLINE ANALYZER / CONTROLLER DISPLAY	20,000.00	18,353.26	1,646.74
CA2611	ACTIVE	REPLACE SHOP AIR COMPRESSOR	15,000.00	12,975.57	2,024.43
CA2612	ACTIVE	FAB SHOP REPLACEMENT EQUIPMENT	15,000.00	13,324.19	1,675.81
CA2613	ACTIVE	REPLACEMENT SHORING EQUIPMENT	20,000.00	0.00	20,000.00
CA2615	ACTIVE	RESERVOIR MIXERS	85,000.00	64,627.08	20,372.92
CA2616	ACTIVE	CHLORINE ANALYZER	20,000.00	9,176.63	10,823.37
CA2618	ACTIVE	LEAK DETECTION EQUIPMENT	15,000.00	0.00	15,000.00
CA2619	ACTIVE	METER BENCH TEST MACHINE	4,000.00	0.00	4,000.00
CA2621	ACTIVE	GPS UNIT	12,000.00	11,168.81	831.19
CA2622	ACTIVE	SEWER MANHOLE FRAME AND COVERS	35,000.00	32,682.34	2,317.66
CA2623	ACTIVE	ANNUAL PC/LAPTOP REPLACEMENT	40,000.00	38,144.13	1,855.87
CA2624	ACTIVE	SRWRF ESXI SERVER FARM REPLACEMENT	70,000.00	0.00	70,000.00
CA2626	ACTIVE	AS-BUILT CONVERSIONS	10,000.00	0.00	10,000.00
CA2627	ACTIVE	OFFICE WORKSTATIONS - PHASE II (FINANCE)	13,500.00	0.00	13,500.00
CA2628	ACTIVE	OFFICE WORKSTATIONS - PHASE II (ENGINEERING)	100,000.00	19,936.62	80,063.38
CA2629	ACTIVE	WAREHOUSE FORKLIFT	60,000.00	0.00	60,000.00
CA2630	ACTIVE	FIRE ALARM SYSTEM REPLACEMENT	77,000.00	0.00	77,000.00
D1903	ACTIVE	REGIONAL VDC PS & CCT	42,740,000.00	22,566,321.96	20,173,678.04
D1911	ACTIVE	VAIL DAM SEISMIC/HYDROLOGIC	101,472,830.00	4,738,202.04	96,734,627.96
D2008	ACTIVE	UPPER VDC RECHARGE WELL 172	5,566,000.00	5,536,497.91	29,502.09
D2009	ACTIVE	UPPER VDC RECHARGE WELL 173	4,877,176.00	3,847,626.01	1,029,549.99
D2048	ACTIVE	CARANCHO PS EXPANSION (DESIGN)	8,750,000.00	4,604,309.33	4,145,690.67
D2058	ACTIVE	UPPER VDC NEW WELL 174	4,603,362.00	2,381,024.24	2,222,337.76
D2062	ACTIVE	PIPELINE ASSET MGMT RC DIV	485,000.00	304,744.06	180,255.94
D2063	ACTIVE	PIPELINE ASSET MGMT SR DIV	485,000.00	292,066.65	192,933.35
D2064	ACTIVE	PIPELINE ASSET MGMT DIV4	260,000.00	106,566.22	153,433.78
D2121	ACTIVE	NEW UVDC WELL NO. 175	5,403,362.00	5,084,186.65	319,175.35
D2132	ACTIVE	WELL 232 EQUIPPING RENOVATION	897,000.00	688,597.12	208,402.88
D2155	ACTIVE	SANTA GERTRUDIS CREEK CROSSING	415,000.00	416,877.77	(1,877.77)
D2172	ACTIVE	RCWD HQ SKYLIGHT ROOF REPAIR	200,000.00	190,245.95	9,754.05
D2181	ACTIVE	UPPER VDC HYDROELECTRIC GENERA	5,700,000.00	3,550,294.22	2,149,705.78
D2184	ACTIVE	GROUNDWATER BANKING FEASIBILIT	1,276,497.00	1,275,977.57	519.43
D2189	ACTIVE	CLEAN FLEET RULES COMPLIANCE M	750,000.00	66,727.14	683,272.86
D2196	ACTIVE	CMMS REPLACEMENT	1,833,625.00	618,407.38	1,215,217.62
D2199	ACTIVE	JOAQUIN RANCH PS DISINFECTION	3,250,000.00	671,892.40	2,578,107.60
D2206	ACTIVE	WATERSMART INTEGRATED GROUNDWA	400,000.00	287,871.84	112,128.16
D2217	ACTIVE	WASHINGTON AVENUE HYDROELECTRI	3,300,000.00	2,158,160.87	1,141,839.13
D2220	ACTIVE	DE PORTOLA PUMP STATION P5 REP	90,000.00	2,877.53	87,122.47
D2223	ACTIVE	BEAR CREEK PS P2 REPLACEMENT	115,000.00	2,190.00	112,810.00
D2225	ACTIVE	ACE BOWEN PS1, P4 REPLACEMENT	125,000.00	3,289.85	121,710.15
D2226	ACTIVE	RANCHO CALIFORNIA PS1-1 REPLAC	75,000.00	521.08	74,478.92
D2227	ACTIVE	BUCK MESA PS, P6 REHABILITATIO	95,000.00	2,877.53	92,122.47
D2229	ACTIVE	DIAZ RD WIDENING FACILITY RELO	125,000.00	80,535.94	44,464.06
D2230	ACTIVE	WELL 139 UNSCHEDULED FAILURE.	665,000.00	692,329.31	(27,329.31)
D2231	ACTIVE	CAL OAKS PUMP STATION P2 REPLA	90,000.00	5,295.00	84,705.00
D2232	ACTIVE	NORMA MARSHALL PUMP STATION P2	90,000.00	0.00	90,000.00
D2242	ACTIVE	PAUBA ROAD WIDENING RELOCATION	150,000.00	210,441.03	(60,441.03)
D2245	ACTIVE	HEADQUARTERS - ROOFING REPAIRS	585,000.00	61,614.90	274,952.60
D2246	ACTIVE	HEADQUARTERS - RECOATING	250,000.00	111,481.44	138,518.56
D2247	ACTIVE	HEADQUARTERS LANDSCAPE UPGRADE	90,000.00	15,944.40	74,055.60
D2250	ACTIVE	WELL NO. 240 TREATMENT STRATEG	1,100,000.00	170,809.44	929,190.56
D2255	ACTIVE	PAUBA VALLEY WELL NOS. 178, 17	2,000,000.00	21,547.11	1,978,452.89
D2256	ACTIVE	VAIL RANCH NEIGHBORHOOD POTABL	2,000,000.00	227,841.31	1,772,158.69
D2258	ACTIVE	INFOR CLOUDSUITE IMPLEMENTATIO	3,115,525.00	2,601,969.09	513,555.91
D2259	ACTIVE	VAIL PROPERTY PLAN	250,000.00	50,216.19	199,783.81
D2262	ACTIVE	RECYCLED WATER PONDS SOLIDS MA	75,000.00	0.00	75,000.00
D2263	ACTIVE	MID-VALLEY RECHARGE BASINS	11,000,000.00	2,182,177.14	8,817,822.86
D2267	ACTIVE	WELL DEPTH SYSTEM RESOURCE	50,000.00	105,334.35	(55,334.35)
D2268	ACTIVE	WELL DEPTH SYSTEM RANCHO	75,000.00	86,475.65	(11,475.65)
D2269	ACTIVE	WELL 149 REHABILITATION	275,000.00	242,295.17	32,704.83

OPEN CAPITAL JOBS / ACTIVITIES

LIFE-TO-DATE BUDGET TO ACTUAL AMOUNTS THROUGH 03/31/2026

SUMMARY PROJECT	STATUS	DESCRIPTION	REVISED BUDGET	PAID TO DATE 03/31/2026	REMAINING BUDGET
D2288	ACTIVE	ACE BOWEN GAS ENGINE 2-1 REBUI	195,000.00	92,862.18	102,137.82
D2292	ACTIVE	RANCHO CALIFORNIA RD ROUNDABOU	250,000.00	599.21	249,400.79
D2500	ACTIVE	RESERVOIR RECOAT & REHAB - RAN	1,500,000.00	16,925.97	1,483,074.03
D2501	ACTIVE	RESERVOIR RECOAT & REHAB - SAN	1,500,000.00	9,432.35	1,490,567.65
D2502	ACTIVE	SANTA ROSA PIPELINE AND APPURT	2,000,000.00	28,732.21	1,971,267.79
D2503	ACTIVE	PAUBA VALLEY WELL NO. 180	6,500,000.00	0.00	6,500,000.00
D2504	ACTIVE	PAUBA VALLEY WELL NO. 181 - WE	6,500,000.00	0.00	6,500,000.00
D2505	ACTIVE	PFAS TREATMENT FACILITY DESIGN	7,500,000.00	313,817.02	7,186,182.98
D2507	ACTIVE	PAUBA VALLEY WELL NO. 178	6,500,000.00	0.00	6,500,000.00
D2508	ACTIVE	PAUBA VALLEY WELL NO. 179	6,500,000.00	40,659.27	6,459,340.73
D2511	ACTIVE	MISC. UNKNOWN RELOCATIONS -FAC	250,000.00	127,923.21	122,076.79
D2512	ACTIVE	MISC. UNKNOWN RELOCATIONS -FAC	65,000.00	59,882.66	5,117.34
D2513	ACTIVE	WELL 309 - WELL PRE-LUBE CABINET	16,000.00	21,127.51	(5,127.51)
D2519	ACTIVE	MURRIETA CREEK FLOOD CONTROL PROJECT, PHASE 2B	1,325,000.00	13,229.09	1,311,770.91
D2570A	ACTIVE	TRAILER FOR PUMPS/WELLS CREW	12,500.00	0.00	12,500.00
D2570B	ACTIVE	HETRA MOBILE COLUMN LIFT-LP SE	85,000.00	84,942.86	57.14
D2570C	ACTIVE	ENCLOSED CAB SKID STEER	130,000.00	119,091.87	10,908.13
D2570E	ACTIVE	VALVE TRAILER	35,000.00	0.00	35,000.00
D2570F	ACTIVE	FAB SHOP REPLACEMENT EQUIPMENT	15,000.00	0.00	15,000.00
D2570G	ACTIVE	REPLACEMENT SHORING EQUIPMENT	15,000.00	13,571.57	1,428.43
D2570H	ACTIVE	GATE MOTOR REPLACEMENT AT HQ	10,000.00	0.00	10,000.00
D2570I	ACTIVE	ONLINE ANALYZER AT VDC AMMONIA	36,500.00	34,678.23	1,821.77
D2570J	ACTIVE	BULK SALT HOPPER	110,000.00	103,270.00	6,730.00
D2570K	ACTIVE	CHEMICAL FEED PUMPS/WELLS FLOW	80,000.00	76,590.80	3,409.20
D2570L	ACTIVE	ITRON SOLAR BATTERIES FOR COLL	25,000.00	7,526.49	17,473.51
D2570M	ACTIVE	MOBILE PIPE/IRRIGATION RECHARG	40,000.00	0.00	40,000.00
D2570N	ACTIVE	DIGITAL PRESSURE RECORDERS	10,000.00	9,920.84	79.16
D2570P	ACTIVE	PC/LAPTOP REPLACEMENT 20%	37,000.00	37,535.54	(535.54)
D2570Q	ACTIVE	REPLACEMENT GRAPHICS WORKSTAT	14,000.00	11,946.89	2,053.11
D2570R	ACTIVE	CANON COPIER/PRINTER REPLACEME	29,000.00	25,882.51	3,117.49
D2570S	ACTIVE	APPLE IPAD REPLACEMENT	18,000.00	0.00	18,000.00
D2570T	ACTIVE	ONBASE ECM SERVER SOFTWARE REP	29,750.00	28,500.00	1,250.00
D2570U	ACTIVE	PERFORMANCE ENG WORKSTATIONS	16,500.00	11,701.50	4,798.50
D2570V	ACTIVE	AS-BUILT CONVERSIONS	10,000.00	0.00	10,000.00
D2601	ACTIVE	FY 2025-26 VALVE AND APPURTENANCE REPLACEMENT	1,950,000.00	1,363,722.72	586,277.28
D2602	ACTIVE	FY25-26 CUSTOMER METER REPLACEMENT	1,005,000.00	23,064.68	981,935.32
D2603	ACTIVE	BUTTERFIELD STAGE PUMP STATION NATURAL GAS DRIVER	250,000.00	9,296.01	240,703.99
D2604	ACTIVE	JEFFERSON AVENUE EXISTING 24-INCH ACP VALVE PROJECT	2,000,000.00	82,887.03	1,917,112.97
D2605	ACTIVE	OLD TOWN FRONT STREET PIPELINE REPLACEMENT	2,500,000.00	67,318.89	2,432,681.11
D2606	ACTIVE	WILDFIRE MITIGATION SUPPORT (STORAGE)	500,000.00	15,524.08	484,475.92
D2607	ACTIVE	FY 2025-26 VALVE AND APPURTENANCE REPLACEMENT	1,260,000.00	809,313.63	450,686.37
D2608	ACTIVE	FY 2025-26 CUSTOMER METER REPLACEMENT	555,000.00	89,653.32	465,346.68
D2609	ACTIVE	HEADQUARTERS FACILITIES MODIFICATIONS AND IMPROVEMENTS, PH 2	500,000.00	156,601.28	208,699.12
D2610	ACTIVE	RENTAL PROPERTY PAVING PROJECT	120,000.00	0.00	120,000.00
D2611	ACTIVE	50-ACRES REBUILD	93,000.00	0.00	93,000.00
D2612	ACTIVE	SCADA COMMUNICATIONS RADIO REPLACEMENT (RANCHO)	62,500.00	61,772.68	727.32
D2613	ACTIVE	PRS PRESSURE RELIEF VALVE SWITCHES (RANCHO)	52,500.00	27,964.07	24,535.93
D2614	ACTIVE	AIR-VAC UPGRADES (RANCHO)	75,000.00	59,184.66	15,815.34
D2615	ACTIVE	ELM ST PUMP STATION 1&2 500KW CAT PORTABLE GENERATOR TO STATIONARY	150,000.00	0.00	150,000.00
D2616	ACTIVE	WELL SHED ENCLOSURES (WELL NO. 232)	130,000.00	22,631.21	107,368.79
D2617	ACTIVE	SURGE TANK AUTOMATION (MECHANICAL)	225,000.00	122,956.26	102,043.74
D2619	ACTIVE	SURGE TANK AUTOMATION (INSTRUMENTATION & CONTROL)	102,000.00	74,707.89	27,292.11
D2620	ACTIVE	SCADA COMMUNICATIONS RADIO REPLACEMENT (SANTA ROSA)	62,500.00	27,991.00	34,509.00
D2621	ACTIVE	PRS PRESSURE RELIEF VALVE SWITCHES (SANTA ROSA)	52,500.00	40,386.83	12,113.17
D2622	ACTIVE	AIR-VAC UPGRADES (SANTA ROSA)	75,000.00	95,398.95	(20,398.95)
D2623	ACTIVE	BALDARAY PUMP STATION 500KW CAT PORT GENERATOR TO STATIONARY	110,000.00	0.00	110,000.00
D2624	ACTIVE	WELL SHED ENCLOSURES	520,000.00	60,626.10	459,373.90
D2625	ACTIVE	WELL NO. 133 REHAB AND APPURTENANCE REPLACEMENT	350,000.00	315,401.13	34,598.87
D2626	ACTIVE	RECYCLED WATER STORAGE PONDS CONTROL VALVE AUTOMATION	267,000.00	2,380.43	264,619.57
D2627	ACTIVE	16-INCH MOV AT ELM STREET PUMP STATION NO. 3	240,500.00	0.00	240,500.00
D2628	ACTIVE	WELL NO. 126 REHAB AND APPURTENANCE REPLACEMENT	350,000.00	27,181.65	322,818.35
D2629	ACTIVE	WELL NO. 152 - REHAB AND MANIFOLD IMPROVEMENTS	170,000.00	180,605.78	(10,605.78)
D2630	ACTIVE	WELLS NOS. 153 & 154 REHAB	200,000.00	0.00	200,000.00
D2631	ACTIVE	ELM ST PUMP STATION 1&2 500KW CAT POR GENERATOR TO STATIONAR	110,000.00	13,825.36	96,174.64
D2632	ACTIVE	IMPROVEMENTS TO CAYENTA SOFTWARE	50,000.00	15,000.00	35,000.00
D2633	ACTIVE	PAYMENT OUTSOURCING SOFTWARE	100,000.00	0.00	100,000.00
D2634	ACTIVE	QUALTRICS CUSTOMER EXPERIENCE SOFTWARE	50,000.00	0.00	50,000.00
D2635	ACTIVE	CRM SOFTWARE	50,000.00	529.33	49,470.67

OPEN CAPITAL JOBS / ACTIVITIES

LIFE-TO-DATE BUDGET TO ACTUAL AMOUNTS THROUGH 03/31/2026

SUMMARY PROJECT	STATUS	DESCRIPTION	REVISED BUDGET	PAID TO DATE 03/31/2026	REMAINING BUDGET
D2636	ACTIVE	CAYENTA UPGRADE	110,000.00	18,000.00	92,000.00
D2637	ACTIVE	GIS COMPONENT	180,000.00	79,457.92	100,542.08
D2639	ACTIVE	DEL ORO SURGE TANK AUTOMATION	50,000.00	38,758.85	11,241.15
D2640	ACTIVE	RW COLLECTION SYSTEM IMPROVEMENTS	200,000.00	0.00	200,000.00
D2641	ACTIVE	RECYCLED WATER STORAGE POND IMPROVEMENTS (DESIGN)	600,000.00	2,307.06	597,692.94
D2644	ACTIVE	MISC UNKNOWN RELOCATIONS - FACILITY RELOCATIONS	275,000.00	0.00	275,000.00
D2645	ACTIVE	COT OVERLAND DRIVE WIDENING - APPURTENANCE RELOCATIONS	200,000.00	0.00	200,000.00
D2646	ACTIVE	MISC UNKNOWN RELOCATIONS - FACILITY RELOCATIONS (SANTA ROSA)	75,000.00	0.00	75,000.00
D2647	ACTIVE	UVDC ENERGY INDEPENDENCE (FEASIBILITY & PRELIMINARY DESIGN)	250,000.00	0.00	250,000.00
D2649	ACTIVE	WAREHOUSE STORAGE IMPROVEMENTS	144,000.00	65,856.56	78,143.44
D2650	ACTIVE	ANZA MOTOR & PUMPING EQUIPMENT	66,000.00	0.00	66,000.00
D2651	ACTIVE	WINCHESTER MOTOR & PUMP EQUIPMENT	66,000.00	0.00	66,000.00
D2652	ACTIVE	NORMA MARSHALL MOTOR & PUMP EQUIPMENT	66,000.00	0.00	66,000.00
D2653	ACTIVE	BUTTERFIELD STAGE MOTOR & PUMP EQUIPMENT	66,000.00	0.00	66,000.00
D2654	ACTIVE	CALLE BREVE MOTOR & PUMP EQUIPMENT	66,000.00	0.00	66,000.00
D2655	ACTIVE	DE PORTOLA RES NO 1 & 2 DRAIN LINE RELOCATION	236,317.19	8,349.07	227,968.12
D2656	ACTIVE	VARIABLE FREQUENCY DRIVE RANCHO PUMP STATION 1	20,000.00	0.00	20,000.00
D2657	ACTIVE	CALLE BREVE PUMP STATION MAIN CIRCUIT BREAKER	17,500.00	0.00	17,500.00
D2658	ACTIVE	EM 20-30 INCH VALVAE ACTUATOR	28,000.00	0.00	28,000.00
G1230	ACTIVE	DWR PROP 1 ROUND 2 SANTA MARGA	1,149,696.00	451,534.55	698,161.45
G1240	ACTIVE	DWR REGIONAL CROPSWAP	6,778,823.00	2,951,742.33	3,827,080.67
G1250	ACTIVE	USBR WATER CONSERVATION DEMO	225,249.77	68,184.65	157,065.12
G1300	ACTIVE	VAIL DAM GRANT MANAGEMENT	10,000.00	11,947.07	(1,947.07)
G2601	ACTIVE	HYDRANT CHECK VALVE - RANCHO WATER	95,913.00	99,020.29	(3,107.29)
G2602	ACTIVE	HYDRANT CHECK VALVE - SANTA ROSA	95,913.00	0.00	95,913.00
NC2501	ACTIVE	WATER RESOURCE PROGRAM	0.00	185,231.68	(185,231.68)
NC2601	ACTIVE	CATHODIC PROTECTION MONITORING AND CORROSION SURVEY	300,000.00	0.00	300,000.00
NC2602	ACTIVE	URBAN WATER MANAGEMENT PLAN UPDATE	250,000.00	68,959.60	181,040.40
NC2604	ACTIVE	SEWER SYSTEM HYDRAULIC MODEL UPDATE	50,000.00	187.51	49,812.49
NC2605	ACTIVE	SUNDANCE CLEAN-OUT PROJECT	75,000.00	17,253.56	57,746.44
NC2606	ACTIVE	BUCK MESA ASBESTOS CLEAN-UP	40,000.00	2,512.00	37,488.00
R0057	ACTIVE	HEADWORKS MCC REPLACEMENT	700,000.00	122,581.64	577,418.36
R0058	ACTIVE	PERCOLATION POND FEASIBILITY & OPTIMIZATION STUDY	500,000.00	2,212.21	497,787.79
R0059	ACTIVE	SBR BASIN FRP DUCT REPAIR	200,000.00	2,755.72	197,244.28
R0070	ACTIVE	SR WATER RECLAMATION SEWER REHABILITATION	450,000.00	21,150.52	428,849.48
R0071	ACTIVE	SEWER PIEPELINE AND MANHOLE REPLACEMENT	450,000.00	26,013.56	423,986.44
R2570	ACTIVE	FY24-25 CAPITAL ACQUISITIONS	189,000.00	72,474.70	116,525.30
R2601	ACTIVE	MISC ASPHALT OVERLAY - ADJUST SEWER MANHOLES TO GRADE	150,000.00	0.00	150,000.00
R2603	ACTIVE	AWT REHABILITATION TERTIARY FILTERS	620,000.00	47,100.33	572,899.67
R2604	ACTIVE	SRWRF ROOF REPAIR PROGRAM	430,000.00	2,127.54	427,872.46
R2605	ACTIVE	REBUILD INFLUENT PUMP (SPARE)	70,000.00	36,254.80	33,745.20
R2606	ACTIVE	SRWRF VALVE REPLACEMENT PROGRAM	80,000.00	63,112.58	16,887.42
R2607	ACTIVE	SRWRF BREAKER TESTING	25,000.00	0.00	25,000.00
		TOTAL PROJECT	**$ 292,527,382.87**	**$ 77,538,363.73**	**$ 211,417,311.50**

Rancho Water

COMMITTEE INFORMATION

ENGINEERING AND OPERATIONS COMMITTEE

April 30, 2026

ITEM 2.C: **Operations Reports - February/March 2026**

RESPONSIBLE/LEAD STAFF MEMBER(S):

Jordan Farrell, Water Operations Manager
Sonny Miller, Operations Services Manager
Dan Ruiz, Assistant General Manager - Engineering & Operations

RECOMMENDATIONS:

This item is for the Engineering and Operations Committee's (Committee) information.

DISCUSSION:

The Operations Department has implemented the automation and monitoring of air pressure in the District's surge tanks across its service area. This will allow staff to monitor tank levels, pressures, and compressor status via SCADA, rather than conducting on-site visual inspections and manually filling surge tanks. Previously, District staff would bring mobile air compressors to fill each surge tank on a monthly basis. Staff would also conduct visual inspections of surge tank levels. On average, each surge tank required 9 hours of labor per month.

There are 21 surge tanks across 15 sites that have been completed to date. Directing staff away from routine tank fill-ups to other higher-priority projects is a better use of District resources and provides a robust return on investment in the form of annual labor dollars saved.

ALTERNATIVES:

Not applicable

FISCAL ANALYSIS:

The return on investment (ROI) from automating this process is evident in the annual labor hours and dollars saved compared to the prior process, which involved servicing surge tanks at multiple sites for an average of 9 hours per month. Based on the average automation cost per tank of $82,000, the ROI timeline per tank is 5 years, 1 month (61 months).

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

1. Ace Bowen Pump Station
2. Rancho Cal Pump Station
3. Production Reports
4. SRWRF Flow Biosolids Production
5. Regulatory Compliance Report - March 2026
6. Water Sales for Month Ending March 2026


Quincy




Quincy

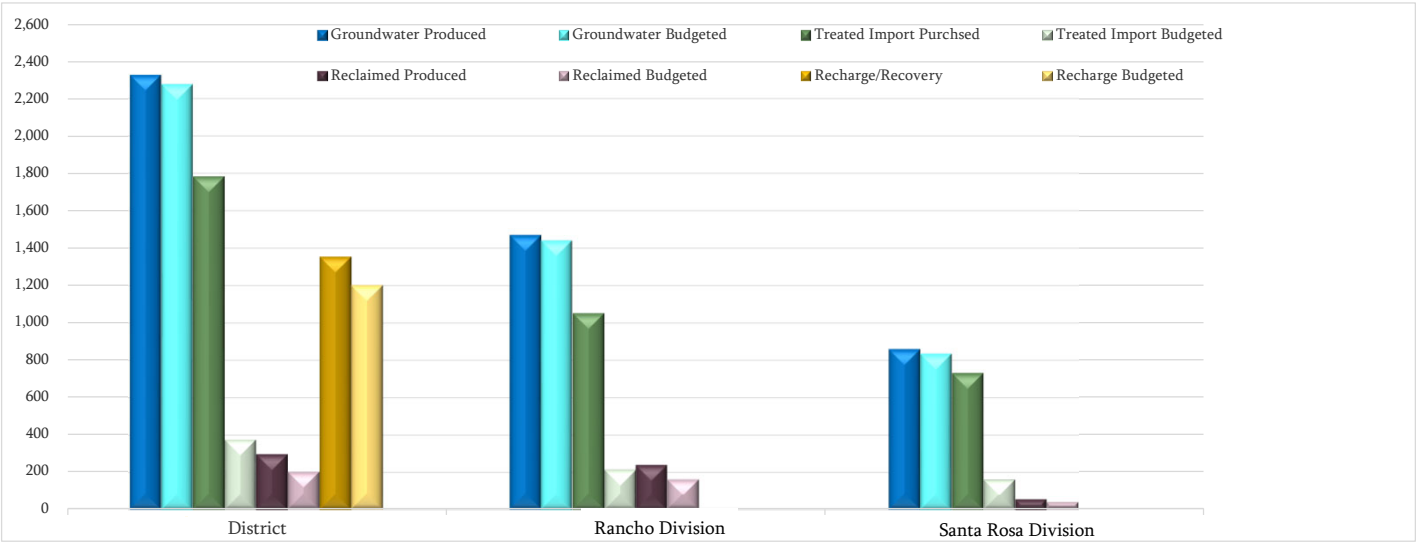
Rancho California Water District

Monthly Production Report

March-26

	District		Rancho Division		Santa Rosa Division		Present To-Date	Budget To-Date
	Mar-25	Mar-26	Mar-25	Mar-26	Mar-25	Mar-26		
Production:								
Groundwater	2,059	2,327	1,531	1,469	528	858	21,608	23,651
Treated Import	149	1,783	104	1,051	45	731	13,603	12,345
Reclaimed	120	296	104	239	16	57	2,614	2,740
(Non-Potable Groundwater)	0	0	0	0	0	0	(46)	(34)
Totals	**2,328**	**4,405**	**1,739**	**2,759**	**589**	**1,646**	**37,779**	**38,702**
Recharge/Recovery	1,218	1,353					11,322	11,289
Pump Stations	2,092	4,587	1,250	2,388	842	2,198	37,438	38,353
Budget:								
Groundwater	2,010	2,277	1,298	1,441	712	835		
Treated Import	654	374	364	214	290	160		
Reclaimed	207	201	169	160	38	38		
Totals	**2,871**	**2,852**	**1,831**	**1,815**	**1,041**	**1,034**		
Recharge	1,200	1,200						
Pump Stations	2,701	2,597	1,205	1,107	1,497	1,489		
Variance:								
Groundwater	49	50	233	27	(185)	23		
Treated Import	(505)	1409	(260)	838	(246)	571		
Reclaimed	(87)	95	(65)	79	(22)	19		
Recharge	18	153						
Totals	**(543)**	**1553**	**(91)**	**944**	**(452)**	**613**		

Summary Metrics:	District		Rancho Division		Santa Rosa Division		Present To-Date		
Total Production To-Date							**37,779**		
Budgeted Production							**38,702**	**(922)**	98%
Groundwater Produced	2,327		1,469		858		21,608		
Groundwater Budgeted	2,277	50	1,441	27	835	23	23,651	(2,043)	91%
Treated Import Purchsed	1,783		1,051		731		13,603		
Treated Import Budgeted	374	1,409	214	838	160	571	12,345	1,258	110%
Reclaimed Produced	296		239		57		2,614		
Reclaimed Budgeted	201	95	160	79	38	19	2,740	(125)	95%
Recharge/Recovery	1,353						11,322		
Recharge Budgeted	1,200	153					11,289	33	100%



Rancho California Water District

Monthly Production Report - Operations

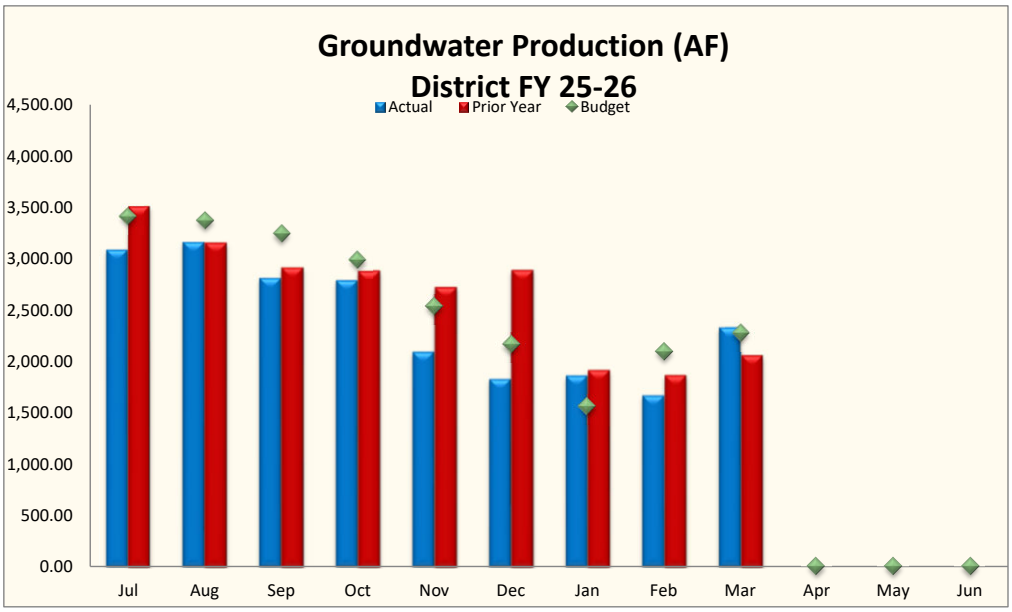
FY March-2026

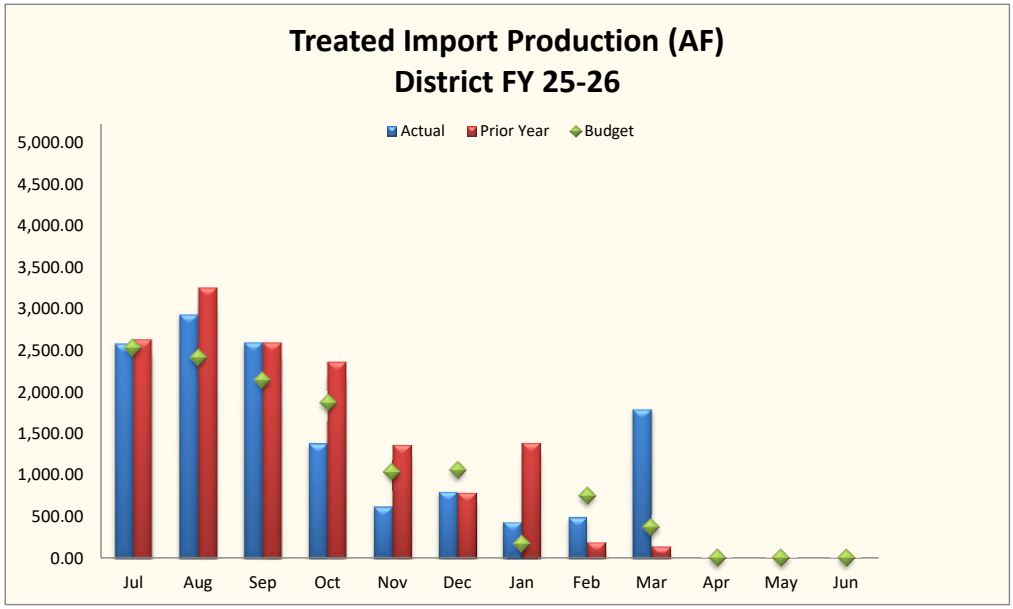
	ACTUAL MAR-25	ACTUAL MAR-26	BUDGET MAR-26	ACTUAL YTD PREVIOUS FY	ACTUAL YTD CURRENT FY	BUDGET YTD	% OF YTD BUDGET
PRODUCTION							
Total Groundwater	2,058.90	2,326.50	2,276.64	23,900.20	21,607.80	23,650.54	91%
Treated Import	148.90	1,782.60	374.00	14,696.40	13,603.10	12,345.00	110%
Total Reclaimed	120.32	296.00	201.24	2,818.05	2,614.28	2,739.16	95%
Non-Potable Groundwater	0.00	0.00	3.24	0.00	46.00	33.63	137%
Totals	2,358.70	4,405.10	2,848.64	41,414.65	37,779.18	38,701.54	98%
Pump Station	2,091.50	4,586.50	2,596.79	42,108.50	37,438.28	38,353.07	98%
RECHARGE (IMPORT)							
Recharge	1,218.30	1,353.20	1,200.00	11,346.70	11,322.20	11,289.00	100%
Recovered	1,218.30	1,353.20	1,200.00	11,346.70	11,322.20	11,289.00	100%
Cyclic Withdrawal	0.00	0.00	0.00	0.00	0.00	0.00	
Bank Withdrawal	0.00	0.00	0.00	0.00	0.00	0.00	

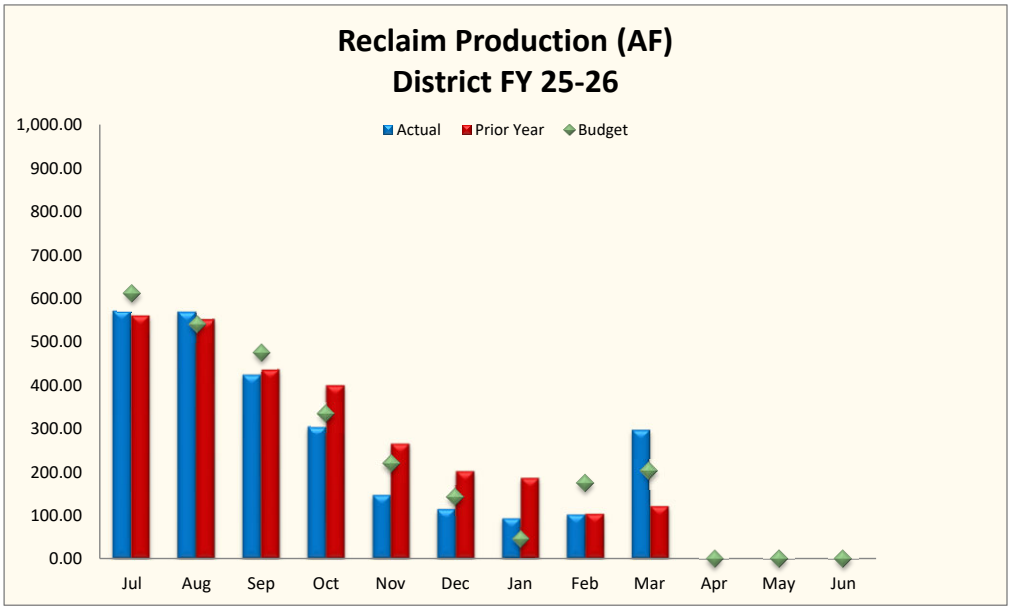
	IN	OUT	REMAINING
STORAGE			
Cyclic	7,929.10 AF	7,929.48 AF	(0.38) AF
Bank	24,836.90 AF	1,448.60 AF	23,388.30 AF

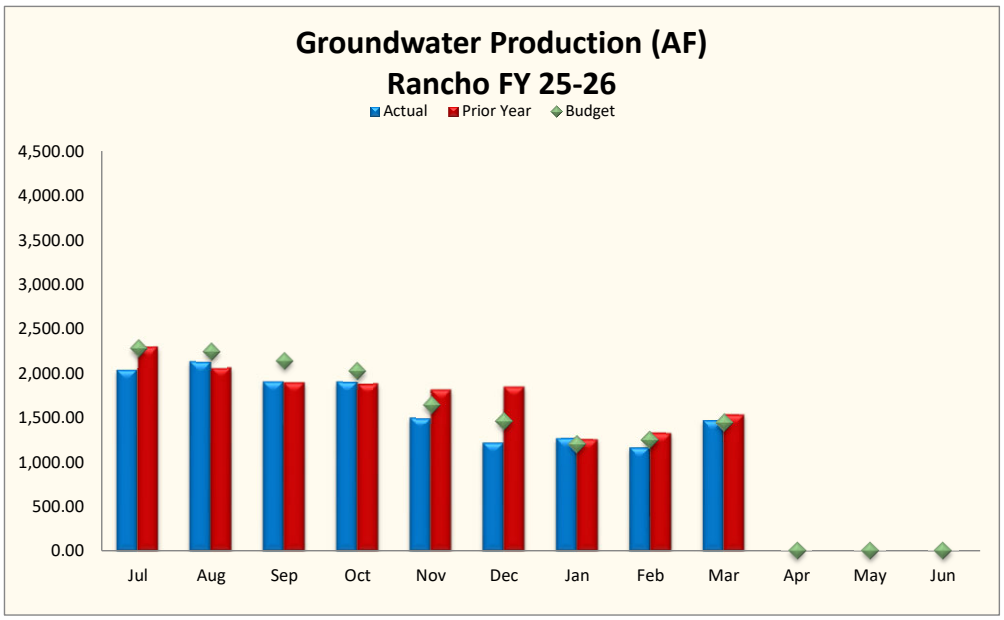
	SANTA ROSA WRF	CONTRACT EMWD	CONTRACT EVMWD	CONTRACT WMWD
RECLAMATION				
Reclaimed	315.02 AF	91.50 AF	---	---
Storage Ponds	1,338.90 AF	---	---	---
Influent	3.27 MGD	0.00 MGD	1.14 MGD	0.90 MGD
Effluent	3.31 MGD	0.96 MGD	---	---

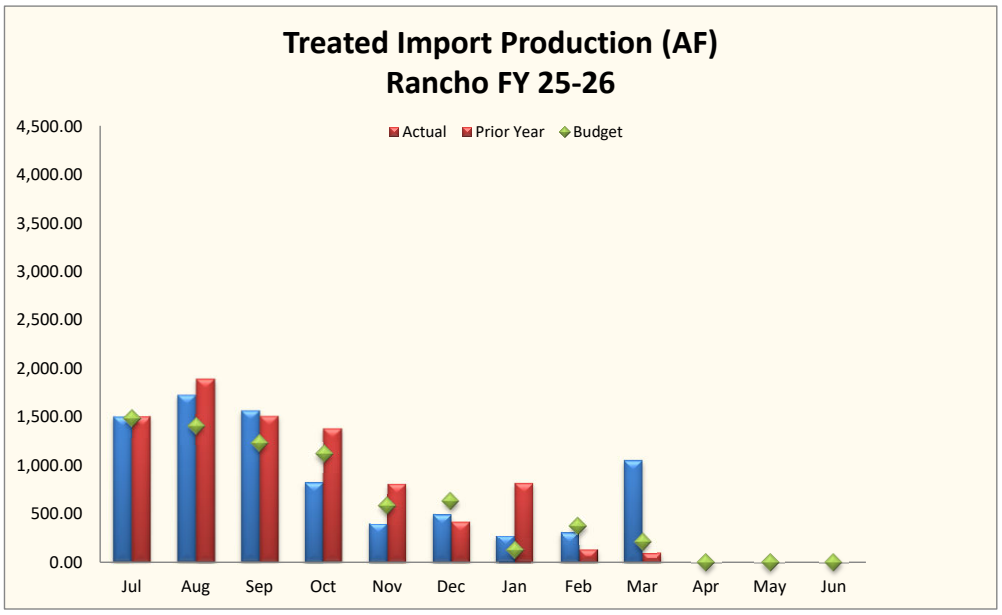
	FEB-26	MAR-26	CHANGE
VAIL LAKE			
Elevation	1,421.96 AMSL	1,421.70 AMSL	(0.26) FT
Storage	12,270.00 AF	12,150.00 AF	(120.00) AF
Draft	0.00 AF	0.00 AF	0.00 AF
Evaporation Gauge	3.44 IN	0.00 IN	(3.44) IN
Estimated Evaporation	128.14 AF	0.00 AF	(128.14) AF
Inflow - Tributary	151.15 AF	0.00 AF	(151.15) AF
Inflow - Rainfall	56.99 AF	1.12 AF	(55.88) AF
Inflow Total	208.14 AF	1.12 AF	(207.02) AF

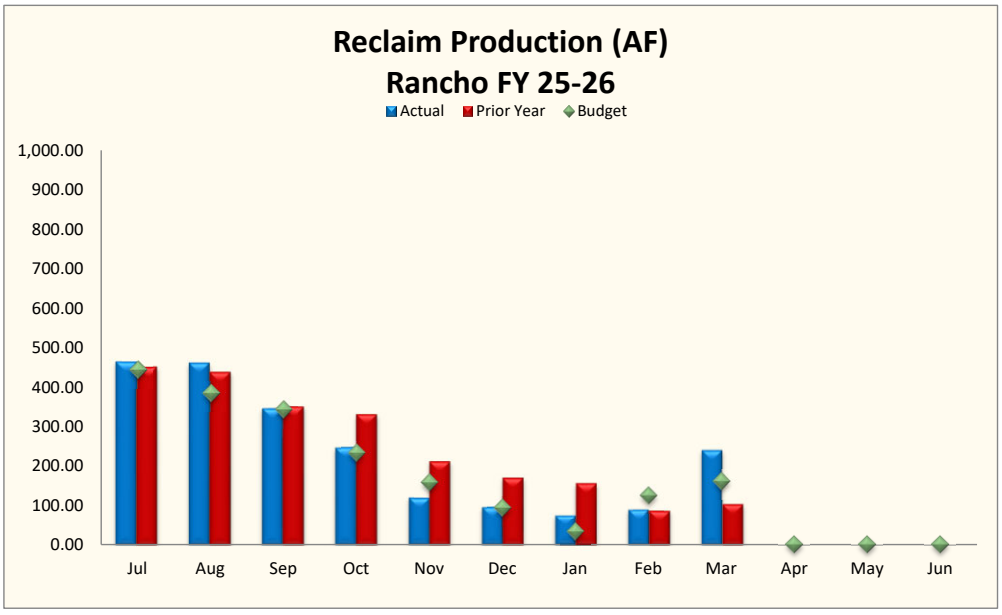

Groundwater Production (AF)
District FY 25-26
Actual
Prior Year
Budget
4,500.00
4,000.00
3,500.00
3,000.00
2,500.00
2,000.00
1,500.00
1,000.00
500.00
0.00
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun

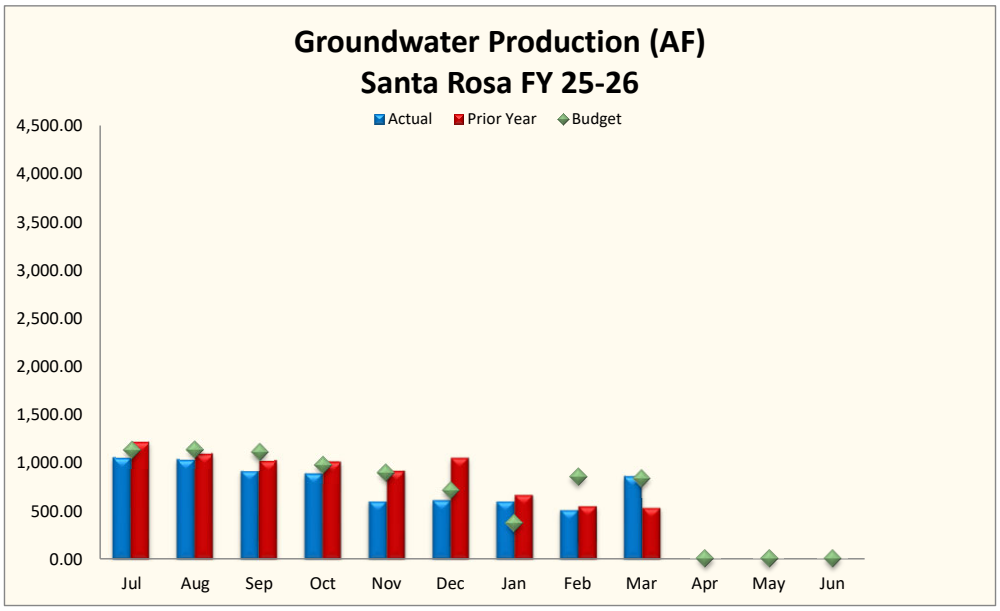

Treated Import Production (AF)
District FY 25-26
Actual
Prior Year
Budget
5,000.00
4,500.00
4,000.00
3,500.00
3,000.00
2,500.00
2,000.00
1,500.00
1,000.00
500.00
0.00
Jul
Aug
Sep
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Nov
Dec
Jan
Feb
Mar
Apr
May
Jun

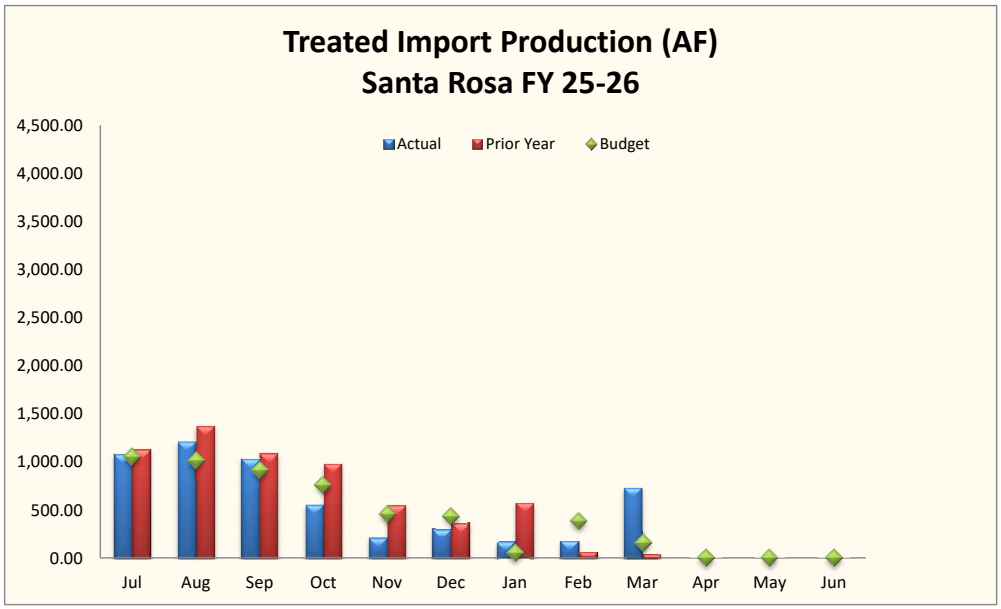

Reclaim Production (AF)
District FY 25-26
Actual
Prior Year
Budget
1,000.00
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
Jul
Aug
Sep
Oct
Nov
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May
Jun

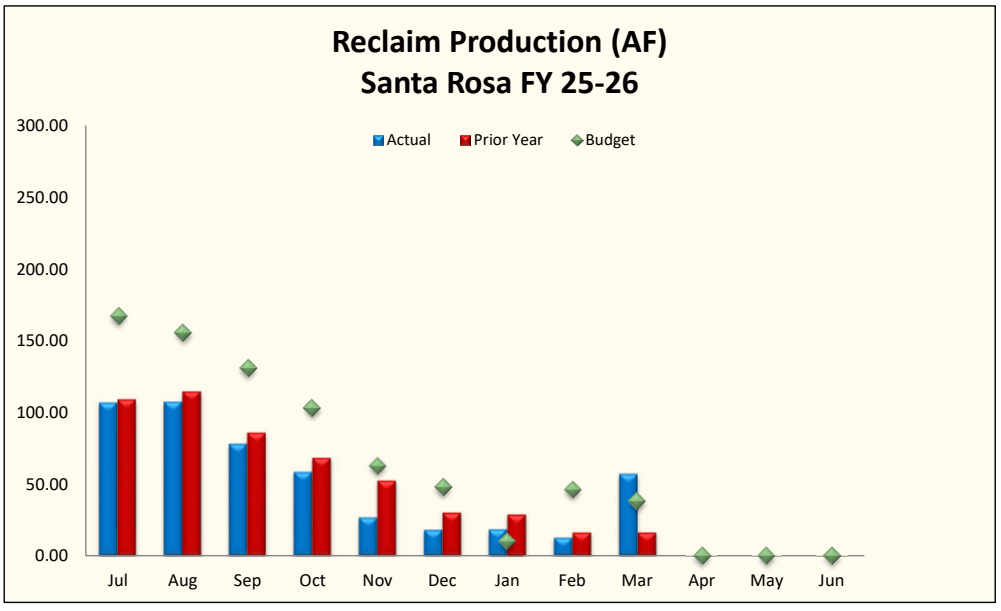

Groundwater Production (AF)
Rancho FY 25-26
Actual
Prior Year
Budget
4,500.00
4,000.00
3,500.00
3,000.00
2,500.00
2,000.00
1,500.00
1,000.00
500.00
0.00
Jul
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Apr
May
Jun

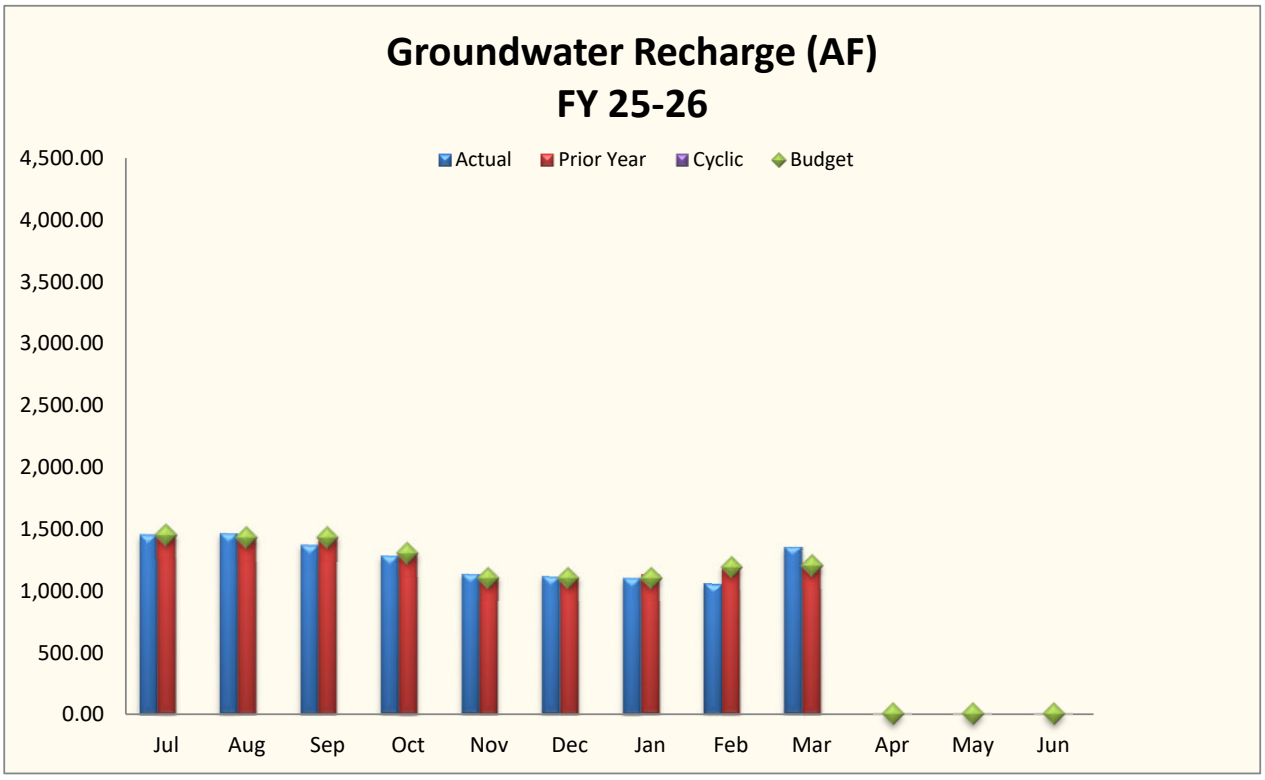

Treated Import Production (AF)
Rancho FY 25-26
Actual
Prior Year
Budget
4,500.00
4,000.00
3,500.00
3,000.00
2,500.00
2,000.00
1,500.00
1,000.00
500.00
0.00
Jul
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May
Jun


Reclaim Production (AF)
Rancho FY 25-26
Actual
Prior Year
Budget
1,000.00
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
Jul
Aug
Sep
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May
Jun


Groundwater Production (AF)
Santa Rosa FY 25-26
Actual
Prior Year
Budget
4,500.00
4,000.00
3,500.00
3,000.00
2,500.00
2,000.00
1,500.00
1,000.00
500.00
0.00
Jul
Aug
Sep
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Nov
Dec
Jan
Feb
Mar
Apr
May
Jun


Treated Import Production (AF)
Santa Rosa FY 25-26
Actual
Prior Year
Budget
4,500.00
4,000.00
3,500.00
3,000.00
2,500.00
2,000.00
1,500.00
1,000.00
500.00
0.00
Jul
Aug
Sep
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Nov
Dec
Jan
Feb
Mar
Apr
May
Jun


Reclaim Production (AF)
Santa Rosa FY 25-26
Actual
Prior Year
Budget
300.00
250.00
200.00
150.00
100.00
50.00
0.00
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun


Groundwater Recharge (AF)
FY 25-26
Actual
Prior Year
Cyclic
Budget
4,500.00
4,000.00
3,500.00
3,000.00
2,500.00
2,000.00
1,500.00
1,000.00
500.00
0.00
Jul
Aug
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Nov
Dec
Jan
Feb
Mar
Apr
May
Jun

FY 2025/2026
Groundwater Production Wells Report

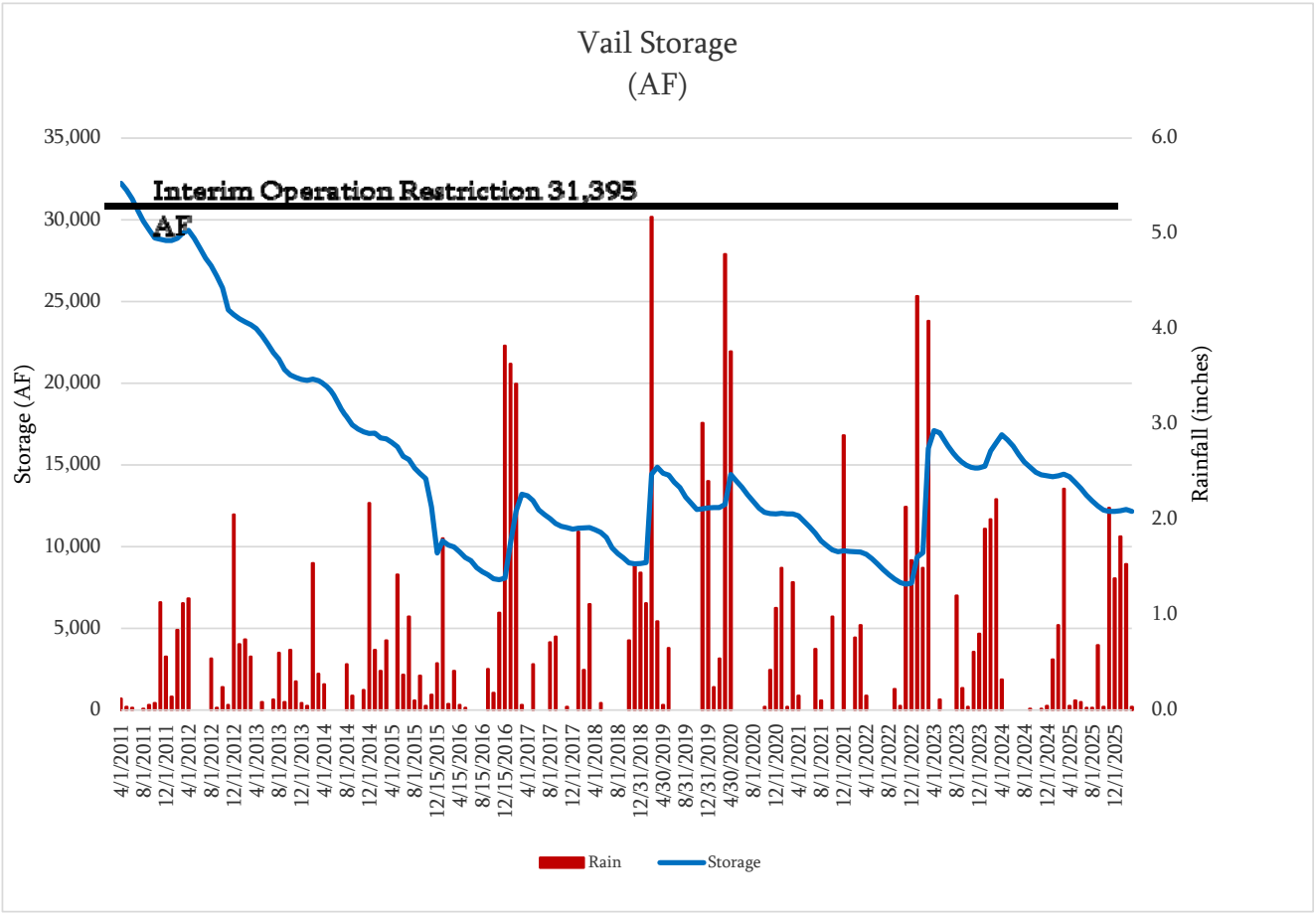
Budgeted Production Wells Out of Service

Well	Out of Service	Estimated Return to Service	Reason
235	Jul-25	TBD	Arsenic
237	Dec-25	TBD	Arsenic

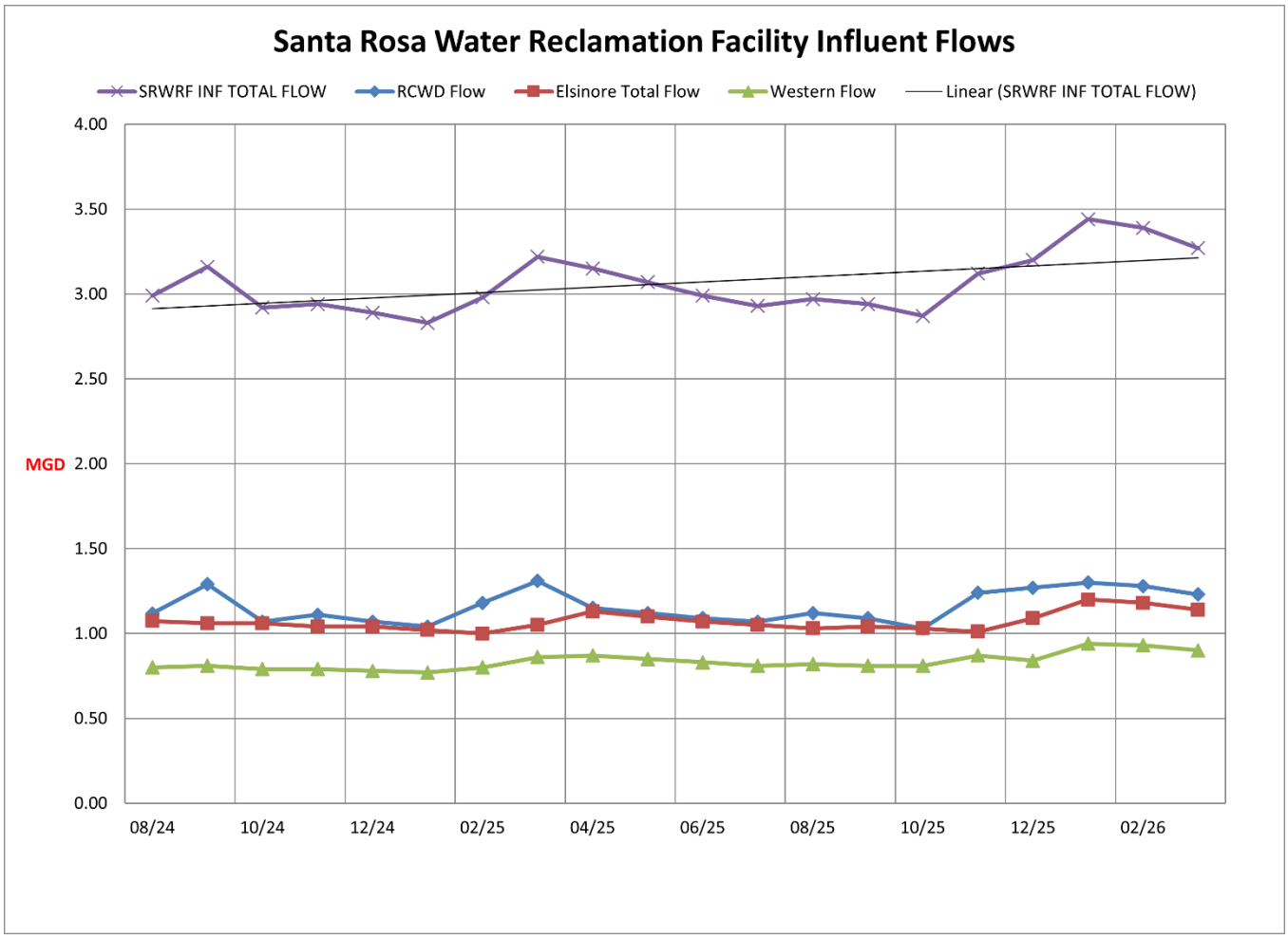
Non-Budgeted Production Wells Out of Service

Well	Out of Service	Estimated Return to Service	Reason	Potential Production AFY
102	Apr-23	2027	PFAS	1000
119	Oct-23	TBD	PFAS	
122	May-23	TBD	PFAS	525
211	May-23	TBD	PFAS	

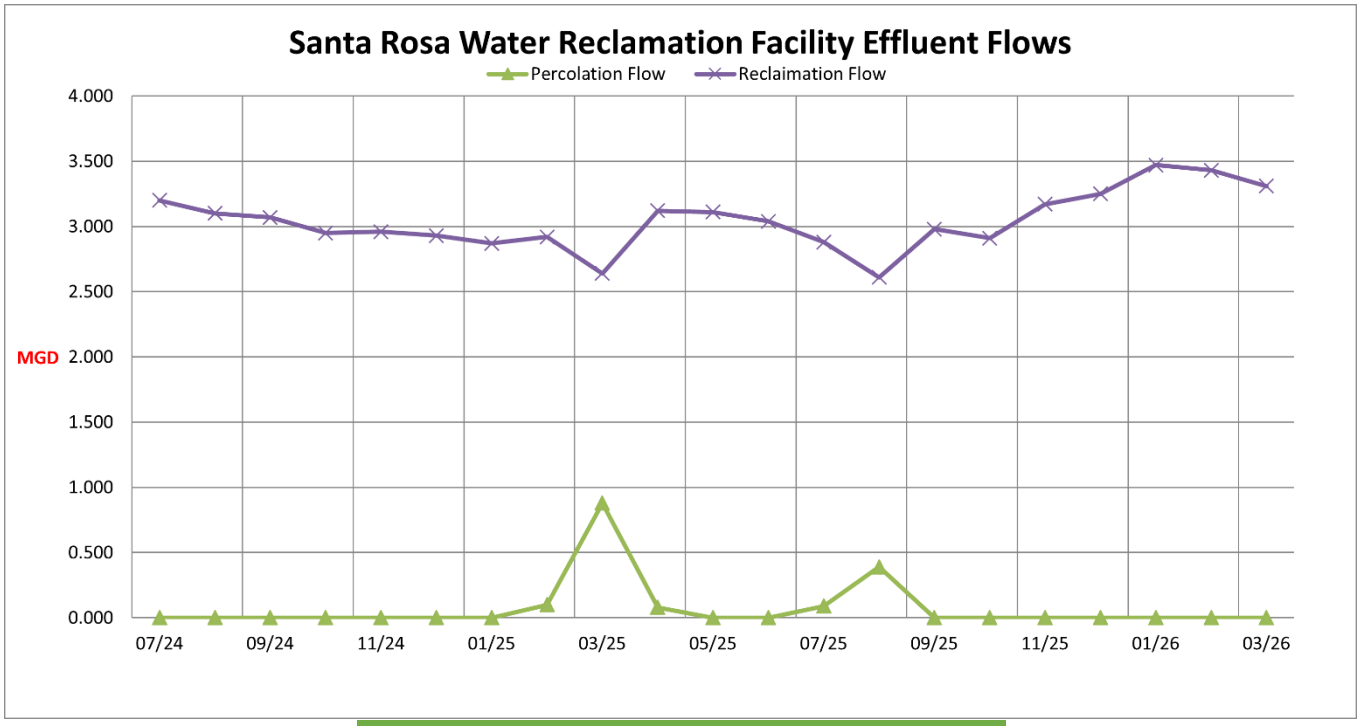
Rancho California Water District
42135 Winchester Road, Temecula, CA 92590
951.296.6900 | RanchoWater.com


Vail Storage
(AF)
Interim Operation Restriction 31,395
AF
Storage (AF)
Rainfall (inches)
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
4/1/2011
8/1/2011
12/1/2011
4/1/2012
8/1/2012
12/1/2012
4/1/2013
8/1/2013
12/1/2013
4/1/2014
8/1/2014
12/1/2014
4/1/2015
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4/1/2018
8/1/2018
12/31/2018
4/30/2019
8/31/2019
12/31/2019
4/30/2020
8/1/2020
12/1/2020
4/1/2021
8/1/2021
12/1/2021
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8/1/2022
12/1/2022
4/1/2023
8/1/2023
12/1/2023
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8/1/2025
12/1/2025
Rain
Storage

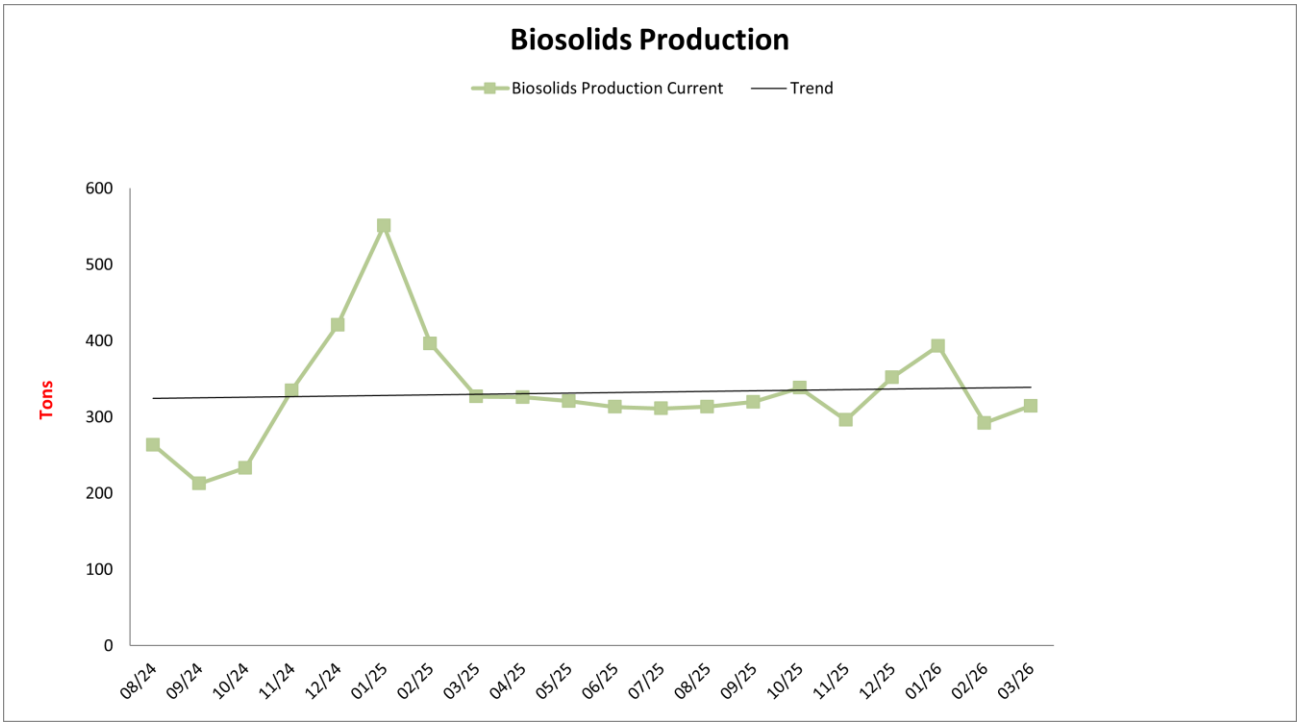
March 2026 SRWRF Flow Biosolids Production



	Monthly Average	YTD Average	Monthly %	YTD %
SRWRF Total Flow	3.27	3.11		
Rancho Flow	1.23	1.17	0.38	37%
Elsinore Flow	1.14	1.09	0.35	35%
Western Flow	0.90	0.86	0.28	28%



	Monthly Average	YTD Average
Reclaimed Flow	3.31	3.11
Percolation Flow	0.000	0.047



	Monthly Total	YTD Average
Biosolids Hauling	315	324.23

REGULATORY COMPLIANCE REPORT
March 2026

Wastewater System (Santa Rosa Water Reclamation Facility/SRWRF):

California Regional Water Quality Control Board, San Diego

Santa Rosa Regional Resources Authority

Order 94-92, Waste Discharge to Reclamation

Reclaimed TDS 12-month average limit of 750mg/L was exceeded this month, with a result of 761mg/L

Reclaimed Chloride 12-month average limit of 200mg/L was exceeded this month, with a result of 210mg/L

Order 94-92, Waste Discharge to Percolation

No Violations

Order WDID 9SSO11546 Sanitary Sewer System Overflows

No Violations

Order 2014-0057-DWQ (replaces 97-03-DWQ), Storm Water Discharge, SRWRF

No Violations

Rancho California Water District

Order WDID 9SSO10699 Sanitary Sewer System Overflows

No Violations

Water System:

State Water Resources Control Board, System 33-10038

Total Coliform Rule Monitoring

No Violations

Arsenic and Fluoride Blending Plan, Well No. 126

No Violations

Arsenic Blending Plan, Well No. 106

No Violations

Arsenic and Fluoride Blending Plan, Well No. 151

No Violations

Iron and Manganese, Well No. 102

No Violations

California Regional Water Quality Control Board, San Diego

Order WQ2014-0194-DWQ (replaces R9-2010-0003 and R9-2002-0020), Miscellaneous Water System Discharges

No Violations

WATER SALES

FOR MONTH ENDING MARCH 31, 2026

	RANCHO	SANTA ROSA	TOTAL
AGRICULTURAL (AF)	29.40	369.15	398.55
AG-DOMESTIC (AF)	67.72	172.74	240.46
DOMESTIC (AF)	892.10	195.52	1,087.62
COMMERCIAL (AF)	167.56	32.90	200.46
LANDSCAPE (AF)	94.39	27.92	122.31
MULTI DWELLING (AF)	143.51	18.80	162.30
RECLAIMED (AF)	90.54	45.15	135.69
OTHER (AF)	33.07	15.68	48.75
ACCRUAL (AF)	0.00	0.00	0.00
TOTAL (AF)	1,518.28	877.86	2,396.14
AGRICULTURAL($)	$ 21,389.36	$ 434,162.70	$ 455,552.06
AG-DOMESTIC ($)	$ 49,263.33	$ 203,161.50	252,424.83
DOMESTIC ($)	$ 684,292.37	$ 240,370.52	924,662.89
COMMERCIAL ($)	$ 121,970.70	$ 39,290.28	161,260.98
LANDSCAPE ($)	$ 68,613.88	$ 42,308.79	110,922.67
MULTI DWELLING ($)	$ 116,737.03	$ 23,597.78	140,334.81
RECLAIMED WATER ($)	$ 41,905.78	$ 23,607.01	65,512.79
OTHER ($)	$ 35,495.50	$ 6,960.53	42,456.03
NET ACCRUALS ($)	0.00	0.00	0.00
WATER SALES RECLASSED ($)	0.00	0.00	0.00
TOTAL WATER SALES	$ 1,139,667.95	$ 1,013,459.11	$ 2,153,127.06
CAPACITY CHARGE	$ 1,232,880.00	$ 761,522.87	$ 1,994,402.87
ENERGY CHARGE	88,428.72	121,239.87	209,668.59
FIRE SERVICE CHARGE	43,751.14	13,438.70	57,189.84
TOTAL WATER REVENUE	$ 2,504,727.81	$ 1,909,660.55	$ 4,414,388.36

*REPRESENTS ACTUAL METER READING DURING THE CURRENT PERIOD
USAGE DOES NOT REFLECT ANY ACCRUALS FOR TIMING DIFFERENCES

REVISED 4/2/2026

WATER SALES

FOR MONTH ENDING MARCH 31, 2026

	CURRENT MO PFY24-25	CURRENT MO FY25-26	24/25 FYTD	25/26 FYTD
AGRICULTURAL (AF)	164.78	398.55	8,339.96	6,593.46
AG-DOMESTIC (AF)	163.32	240.46	4,764.80	4,041.24
DOMESTIC (AF)	1,041.40	1,087.62	16,808.68	15,322.18
COMMERCIAL (AF)	199.94	200.46	2,341.56	2,272.42
LANDSCAPE (AF)	102.92	122.31	3,408.75	2,841.33
MULTI DWELLING (AF)	156.69	162.30	1,669.66	1,766.77
RECLAIMED (AF)	104.52	135.69	3,395.15	2,974.70
OTHER (AF)	56.04	48.75	917.40	751.69
NET ACCRUAL (AF)	213.23	0.00	(2,212.76)	(2,110.78)
TOTAL (AF)	2,202.85	2,396.14	39,433.19	34,453.03
AGRICULTURAL ($)	$ 167,015.99	$ 455,552.06	$ 8,275,891.14	$ 6,769,593.63
AG-DOMESTIC ($)	145,549.12	252,424.83	4,431,450.67	3,974,216.91
DOMESTIC ($)	808,494.78	924,662.89	14,934,499.71	13,552,518.20
COMMERCIAL ($)	144,072.03	161,260.98	1,952,878.26	1,964,216.69
LANDSCAPE ($)	90,865.76	110,922.67	3,383,945.06	2,597,152.21
MULTI DWELLING ($)	127,369.69	140,334.81	1,380,469.97	1,529,232.97
RECLAIMED ($)	51,667.54	65,512.79	1,530,511.31	1,376,590.91
OTHER ($)	51,705.17	42,456.03	1,015,515.88	868,923.49
NET ACCRUALS	182,061.92	-	(3,415,619.00)	(2,740,445.55)
WATER SALES RECLASSED	-	-	-	-
TOTAL WATER SALES	$ 1,768,802.00	$ 2,153,127.06	$ 33,489,543.00	$ 29,891,999.46
CAPACITY CHARGE	$ 1,860,042.10	$ 1,994,402.87	$ 17,351,392.03	$ 18,162,144.38
ENERGY CHARGE	137,253.28	209,668.59	3,344,061.73	3,065,774.44
FIRE SERVICE CHARGE	56,928.16	57,189.84	519,795.36	529,804.09
TOTAL WATER REVENUE	$ 3,823,025.54	$ 4,414,388.36	$ 54,704,792.12	$ 51,649,722.37

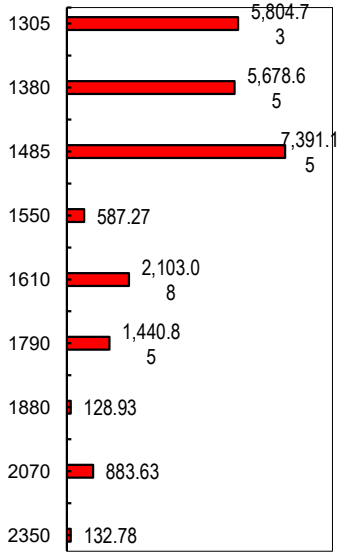
REVISED 4/2/2026

WATER USAGE BY PRESSURE ZONE
IN ACRE FEET (AF)
FOR MONTH ENDING MARCH 31, 2026

RANCHO DIVISION
YTD WATER SALES IN AF

RANCHO DIVISION

ZONE	***CURRENT MO.***	***YTD 2025/26***
9991 (MEMO ONLY)	12.70	112.98
2350	8.96	132.78
2070	47.13	883.63
1880	8.51	128.93
1790	59.04	1,440.85
1610	93.34	2,103.08
1550	37.78	587.27
1485	475.40	7,391.15
1380	367.05	5,678.65
1305	421.07	5,804.73
TOTAL (AF)	**1,518.28**	**24,151.07**



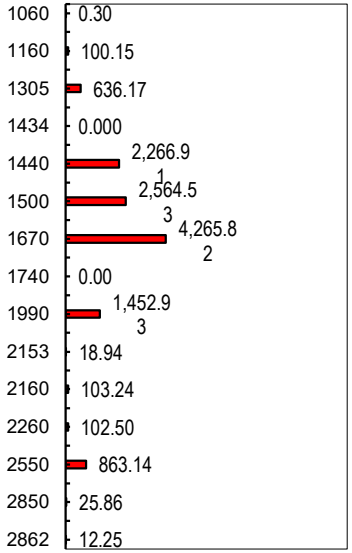
REVISED 4/2/2026

WATER USAGE BY PRESSURE ZONE
(IN ACRE FEET)
FOR MONTH ENDING MARCH 31, 2026

SANTA ROSA DIVISION

ZONE	***CURRENT MO.***	***YTD 2025/26***
9992 (MEMO ONLY)	3.70	76.11
2862	0.80	12.25
2850	1.50	25.86
2550	59.24	863.14
2260	7.49	102.50
2160	8.17	103.24
2153	1.17	18.94
1990	101.30	1,452.93
1740	0.00	0.00
1670	302.59	4,265.82
1500	186.60	2,564.53
1440	152.03	2,266.91
1434	0.000	0.000
1305	50.17	636.17
1160	6.77	100.15
1060	0.02	0.30
TOTAL (AF)	**877.86**	**12,412.74**

SANTA ROSA DIVISION
YTD WATER SALES IN AF



REVISED 4/2/2026

RANCHO CALIFORNIA WATER DISTRICT
WATER SALES ACTIVITY SUMMARY
FISCAL YEAR 2025-2026
PERIOD ENDING: March 31, 2026

		JULY 2025	AUG 2025	SEPT 2025	OCT 2025	NOV 2025	DEC 2025	JAN 2026	FEB 2026	MAR 2026	APR 2026	MAY 2026	JUNE 2026	YTD
No#. Services														
Rancho Division														
Agriculture		141	141	141	141	141	140	140	140	140				
Agriculture/Domestic		393	393	394	394	395	395	395	395	395				
Domestic		32,729	32,732	32,732	32,733	32,732	32,738	32,740	32,740	32,742				
Commercial		1,271	1,271	1,272	1,273	1,273	1,273	1,273	1,273	1,274				
Landscape		1,160	1,160	1,161	1,162	1,162	1,162	1,162	1,162	1,163				
Multi Dwellings		238	238	236	236	236	240	240	240	240				
Reclaimed		199	201	201	201	201	201	201	201	201				
Other	PY END	1,060	1,055	1,059	1,062	1,060	1,066	1,062	1,068	1,072				
Total Rancho Divisio	37,185	37,191	37,191	37,196	37,202	37,200	37,215	37,213	37,219	37,227	-	-	-	
Santa Rosa Division														
Agriculture		495	495	497	497	497	497	496	496	496				
Agriculture/Domestic		477	477	477	478	478	478	480	480	480				
Domestic		6,349	6,352	6,352	6,353	6,353	6,353	6,353	6,354	6,355				
Commercial		465	465	465	465	465	468	468	468	468				
Landscape		307	307	306	306	306	307	307	307	307				
Multi Dwellings		10	10	10	10	10	10	10	10	10				
Reclaimed		109	109	109	109	109	109	109	109	109				
Other	PY END	356	361	360	362	359	359	358	355	356				
Total Santa Rosa	8,558	8,568	8,576	8,576	8,580	8,577	8,581	8,581	8,579	8,581	-	-	-	
Total Divisions Combined		45,759	45,767	45,772	45,782	45,777	45,796	45,794	45,798	45,808	-	-	-	
Capacity Charge														
Rancho Division														
Agriculture		23,446	23,446	25,009	24,227	24,251	22,937	23,060	25,042	23,896				215,313
Agriculture/Domestic		28,144	28,142	30,112	29,184	29,241	27,317	29,832	32,374	28,289				262,635
Domestic		889,923	883,501	924,469	921,587	912,094	868,606	905,965	996,598	918,181				8,220,923
Commercial		99,644	98,029	100,989	103,103	101,485	98,305	97,895	108,835	105,750				914,035
Landscape		79,463	78,751	82,644	82,237	81,526	77,885	81,421	89,448	82,416				735,791
Multi Dwellings		3,738	3,707	3,878	3,834	3,806	3,624	3,761	4,138	3,795				34,282
Reclaimed		8,066	7,811	7,884	8,414	8,191	8,164	7,714	11,383	12,845				80,472
Other		53,677	54,027	53,483	54,620	55,221	53,020	52,954	59,858	57,708				494,568
Total Rancho Division		1,186,101	1,177,413	1,228,467	1,227,207	1,215,814	1,159,858	1,202,604	1,327,676	1,232,880	-	-	-	10,958,019
Santa Rosa Division														
Agriculture		132,958	132,688	141,331	136,652	136,647	127,814	143,372	154,513	135,595				1,241,572
Agriculture/Domestic		79,350	79,261	84,801	82,370	82,243	76,875	86,765	93,676	82,306				747,646
Domestic		398,466	398,235	427,024	413,035	413,108	386,257	433,311	466,393	408,292				3,744,120
Commercial		56,599	56,599	61,106	58,578	58,559	54,781	61,582	66,636	58,281				532,723
Landscape		38,881	39,035	41,604	40,310	40,321	37,695	42,074	45,491	39,637				365,048
Multi Dwellings		29,887	29,887	31,879	30,883	30,883	28,891	31,235	457	401				214,402
Reclaimed		2,832	2,816	3,015	2,932	2,922	2,739	3,804	4,774	4,167				30,001
Other		34,446	34,735	39,578	37,678	37,767	34,084	37,377	40,104	32,844				328,613
Total Santa Rosa Division		773,418	773,256	830,338	802,438	802,450	749,138	839,520	872,045	761,523	-	-	-	7,204,125
Total Divisions Combined		1,959,519	1,950,669	2,058,805	2,029,645	2,018,264	1,908,996	2,042,124	2,199,721	1,994,403	-	-	-	18,162,144

RANCHO CALIFORNIA WATER DISTRICT
WATER SALES ACTIVITY SUMMARY
FISCAL YEAR 2025-2026
PERIOD ENDING: March 31, 2026

	JULY 2025	AUG 2025	SEPT 2025	OCT 2025	NOV 2025	DEC 2025	JAN 2026	FEB 2026	MAR 2026	APR 2026	MAY 2026	JUNE 2026	YTD
Water Sold ($)													
Rancho Division													
Agriculture	162,563	178,264	186,222	136,753	92,332	32,674	19,904	30,751	21,389				860,853
Agriculture/Domestic	178,930	221,364	236,452	199,943	167,178	86,933	48,964	66,013	49,263				1,255,041
Domestic	1,349,290	1,552,199	1,707,696	1,530,378	1,213,625	784,910	691,812	738,285	684,292				10,252,488
Commercial	167,337	180,327	200,998	228,090	199,675	180,241	137,546	108,401	121,971				1,524,585
Landscape	292,641	360,344	388,635	361,110	228,432	111,264	86,772	86,186	68,614				1,983,998
Multi Dwellings	154,389	160,352	175,612	166,624	145,434	119,507	113,674	122,133	116,737				1,274,462
Reclaimed	156,318	193,711	204,301	184,822	116,446	67,810	38,904	17,750	41,906				1,021,968
Other	62,030	88,959	87,496	68,576	61,936	44,720	37,678	39,729	35,496				526,620
Total Rancho Division	2,523,498	2,935,522	3,187,413	2,876,296	2,225,058	1,428,060	1,175,254	1,209,249	1,139,668	-	-	-	18,700,017
Santa Rosa Division													
Agriculture	937,793	999,547	1,086,414	743,681	673,108	307,520	172,286	554,229	434,163				5,908,741
Agriculture/Domestic	413,683	437,535	489,171	349,530	322,906	154,460	97,858	250,870	203,162				2,719,176
Domestic	489,055	520,765	574,278	432,267	363,245	220,633	175,983	283,433	240,371				3,300,030
Commercial	53,136	56,815	62,361	56,989	53,027	41,138	33,226	43,649	39,290				439,631
Landscape	103,150	119,397	121,321	101,825	60,027	22,375	12,045	30,705	42,309				613,154
Multi Dwellings	26,117	25,785	28,987	30,149	28,492	30,723	33,370	27,551	23,598				254,771
Reclaimed	59,530	72,634	67,276	39,366	40,937	15,458	13,785	22,030	23,607				354,623
Other	69,896	70,153	62,018	35,036	46,941	15,620	8,002	27,677	6,961				342,303
Total Santa Rosa Division	2,152,360	2,302,631	2,491,826	1,788,844	1,588,682	807,926	546,554	1,240,144	1,013,459	-	-	-	13,932,428
Total Divisions Combined	4,675,858	5,238,153	5,679,239	4,665,140	3,813,740	2,235,986	1,721,808	2,449,394	2,153,127	-	-	-	32,632,445
Energy Charge													
Rancho Division													
Agriculture	30,329	33,444	33,457	23,663	15,164	4,862	3,477	5,638	3,750				153,785
Agriculture/Domestic	40,470	45,275	46,522	34,498	25,277	11,874	10,695	14,823	11,094				240,527
Domestic	114,164	123,445	133,236	111,915	91,999	59,505	56,505	67,182	59,670				817,621
Commercial	2,311	2,462	2,780	2,458	2,205	1,611	1,630	1,901	1,718				19,076
Landscape	17,989	19,934	21,560	17,109	11,056	5,013	4,224	5,552	4,484				106,922
Multi Dwellings	2,285	2,336	2,544	2,393	2,195	1,774	1,781	2,020	1,838				19,166
Reclaimed	10,900	13,525	13,640	12,358	7,654	4,307	2,817	1,155	3,322				69,678
Other	5,044	5,867	6,002	5,137	4,529	2,514	2,718	2,660	2,551				37,022
Total Rancho Division	223,492	246,287	259,741	209,531	160,079	91,459	83,847	100,931	88,429	-	-	-	1,463,796
Santa Rosa Division													
Agriculture	103,649	111,428	119,533	80,441	71,621	33,401	19,394	62,632	48,546				650,645
Agriculture/Domestic	56,949	60,047	65,664	46,437	41,761	20,065	14,345	33,845	27,969				367,082
Domestic	71,722	74,252	81,688	59,927	51,600	31,116	26,345	41,933	37,187				475,769
Commercial	1,275	1,343	1,523	1,174	1,127	929	872	1,157	1,033				10,433
Landscape	5,126	5,676	5,668	4,375	2,744	797	615	1,578	1,688				28,267
Multi Dwellings	1,543	1,527	1,670	1,547	1,448	1,452	1,568	1,550	1,392				13,698
Reclaimed	5,573	6,697	5,902	3,101	3,546	815	609	1,435	1,893				29,571
Other	6,034	5,066	5,230	2,298	3,185	1,168	348	1,652	1,531				26,513
Total Santa Rosa Division	251,871	266,035	286,879	199,300	177,031	89,744	64,097	145,782	121,240	-	-	-	1,601,979
Total Divisions Combined	475,363	512,321	546,621	408,831	337,110	181,203	147,944	246,713	209,669	-	-	-	3,065,774

RANCHO CALIFORNIA WATER DISTRICT
WATER SALES ACTIVITY SUMMARY
FISCAL YEAR 2025-2026
PERIOD ENDING: March 31, 2026

	JULY 2025	AUG 2025	SEPT 2025	OCT 2025	NOV 2025	DEC 2025	JAN 2026	FEB 2026	MAR 2026	APR 2026	MAY 2026	JUNE 2026	YTD
Fire Service													
Rancho	44,059	43,316	44,578	45,546	44,840	43,628	43,197	45,357	43,751				398,272
Santa Rosa	14,377	14,377	15,456	14,872	14,869	13,935	14,850	15,358	13,439				131,532
Total:	58,437	57,692	60,034	60,418	59,709	57,563	58,046	60,715	57,190	-	-	-	529,804
Water Sold (AF)													
Rancho Division													
Agriculture	250	274	278	197	123	39	29	42	29				1,261
Ag/Domestic	274	308	316	235	175	80	72	91	68				1,619
Domestic	1,735	1,901	2,049	1,785	1,457	1,000	924	955	892				12,699
Commercial	229	242	256	272	221	182	168	167	168				1,906
Landscape	390	443	475	395	256	128	102	104	94				2,386
Multi Dwellings	187	194	209	197	177	152	150	154	144				1,562
Reclaimed	353	433	449	399	255	152	85	43	91				2,261
Other	53	71	75	59	55	35	31	43	33				456
Total Rancho Division	3,472	3,866	4,107	3,538	2,718	1,770	1,561	1,600	1,518	-	-	-	24,151
Santa Rosa Division													
Agriculture	866	922	1,001	672	602	270	159	471	369				5,333
Ag/Domestic	380	399	443	311	280	133	91	213	173				2,422
Domestic	395	410	441	334	286	182	159	220	196				2,623
Commercial	47	50	52	45	41	32	30	37	33				366
Landscape	82	91	92	72	43	15	10	22	28				455
Multi Dwellings	24	23	26	24	22	22	24	21	19				204
Reclaimed	121	147	136	80	83	31	28	42	45				714
Other	60	57	52	28	39	13	7	22	16				295
Total Santa Rosa Division	1,975	2,099	2,243	1,565	1,397	699	508	1,048	878	-	-	-	12,413
Total Divisions Combined	5,447	5,965	6,350	5,104	4,115	2,469	2,070	2,648	2,396	-	-	-	36,564
No. of Sewer Accts													
Santa Rosa	4,878	4,878	4,878	4,878	4,878	4,878	4,878	4,878	4,878				
Elsinore Valley (EDU)	6,129	6,129	6,129	6,129	6,129	6,129	6,129	6,129	6,129				
Eastern Municipal (Rancho)	30,965	30,966	30,966	30,967	30,967	30,977	30,977	30,978	30,978				
Sewer Charge													
Santa Rosa	392,091	391,712	420,715	405,719	405,657	379,552	412,362	431,089	377,325				
Eastern Municipal WD	2,039,146	2,020,599	2,109,707	2,108,116	2,087,158	1,994,690	2,051,225	2,211,790	2,057,125				

Rancho Water

COMMITTEE INFORMATION

ENGINEERING AND OPERATIONS COMMITTEE

April 30, 2026

ITEM 2.D: **Assistant General Manager's Report - Update of Helicopter Dip Tanks, Sundance Property Clean-up, and Administration Building Balcony Design**

RESPONSIBLE/LEAD STAFF MEMBER(S):

Dan Ruiz, Assistant General Manager - Engineering and Operations

RECOMMENDATIONS:

This item is for the Engineering and Operations Committee's (Committee) information.

DISCUSSION:

Staff will provide the Committee with a presentation update of the following projects:

- Helicopter Dip Tank Siting Update and Recommendations
- Status of Sundance Property Clean-up
- Administration Building Balcony Water Intrusion Design Update

ALTERNATIVES:

Not applicable

FISCAL ANALYSIS:

Not applicable

ENVIRONMENTAL REQUIREMENTS:

None