REGULAR CITY COUNCIL AGENDA

City Hall - Council Chambers
4381 Broadway St., Suite 201, American Canyon
August 18, 2026
6:30 PM

Mayor: Pierre Washington
Vice Mayor: Mayor Mark Joseph
Councilmembers: Brando Cruz, Melissa Lamattina, David Oro

AMENDED AGENDA

This agenda has been amended to add item 14 Utility Update.

5:00 P.M. CLOSED SESSION

CALL TO ORDER - CLOSED SESSION

ROLL CALL - CLOSED SESSION

PUBLIC COMMENT - CLOSED SESSION MATTERS

This time is reserved for members of the public to address the City Council on Closed Session Business items only. Oral comments must be made in person and are limited to three (3) minutes per speaker.

MEETING RECESSED TO CLOSED SESSION

The Council will reconvene in Open Session at 6:30 p.m. The Council may reconvene in Closed Session at the conclusion of the meeting, if necessary, to address any remaining items.

BUSINESS - CLOSED SESSION

1. **Matters Relating to Public Employment: Public Employee Performance Evaluations (pursuant to Gov. Code section 54957)**
   Positions: Jason Holley, City Manager

2. **Conference with Legal Counsel - Existing Litigation. Authorized pursuant to Government Code Section 54956.9(d)(1):**

   a. ***City of American Canyon v. City of Vallejo, et al. (Sacramento Superior Court Case No. 34-2022-00327471).***
   b. ***American Canyon 1, LLC and Napa Valley Ruins & Gardens, LLC v. City of American Canyon et al. (Napa County Superior Court Case No. 25CV002277)***
   c. ***American Canyon 1, LLC and Napa Valley Ruins & Gardens, LLC v. City of American Canyon, County of Napa, et al. (Napa County Superior Court Case No. 26CV001286)***
   d. ***Orchard Partners v. City of American Canyon (Napa County Superior Court Case No. 26CV000115)***
   e. ***City of American Canyon v. Timothy Shea (Napa County Superior Court Case No. 20CVB)***

3. **Conference with Legal Counsel – Anticipated Litigation. Authorized pursuant to Government Code Section 54956.9 (d)(2). One (1) Matter.**

CLOSED SESSION REPORT OUT / CONFIRMATION OF REPORTABLE ACTION

The City Attorney will report out on any action taken in Closed Session, and confirm any reportable action, if applicable.

6:30 P.M. OPEN SESSION

CALL TO ORDER - OPEN SESSION

PLEDGE OF ALLEGIANCE

ROLL CALL - OPEN SESSION

PROCLAMATIONS AND PRESENTATIONS

4. **Proclamation: Honoring Chris Morris for 18 Years of Dedicated Service**

PUBLIC COMMENT - ITEMS NOT ON THE AGENDA

This time is reserved for members of the public to address the City Council on items not appearing on the agenda that are within the Council's jurisdiction. Comments are limited to three (3) minutes per speaker. Pursuant to the Brown Act, the City Council is generally prohibited from discussing or taking action on items not listed on the agenda.

AGENDA CHANGES

The City Council may change the order of the agenda or request discussion of an item on the Consent Calendar. Members of the public may request discussion of a Consent Calendar item during Public Comment.

CONSENT CALENDAR

5. **Minutes of August 4, 2026**
Recommendation: Approve the minutes of the Regular City Council meeting held August 4, 2026.

6. **Contract Award for South Kelly-Highway 29 Intersection Project (TR23-0200)**
Recommendation: Adopt a Resolution 1) awarding a Construction Contract to Carone and Company, Inc. in the amount of $3,128,499.50, 2) authorizing the City Manager to execute a reimbursement agreement between the City of American Canyon and the County of Napa to complete the construction of the Project for an amount not to exceed $2,149,156, 3) authorizing the City Manager to enter into an agreement for Construction Management and Inspection Services in an amount not to exceed $300,000, and 4) authorizing the Public Works Director to approve and execute contract change orders in an aggregate amount not to exceed the Construction Budget, in conjunction with the South Kelly-Highway 29 Intersection Project (TR23-0200).

7. **Green Island Road Project Budget Reconciliation**
Recommendation: Adopt a Resolution amending the FY2026-2027 Capital Budget and

increasing the Project Budget from $20,074,000 to $22,600,000, in conjunction with the Green Island Road Reconstruction and Widening Project (TR16-0700).

8. **Quarterly Investment Report for City and Fire District for Fiscal Year 2025-26 Quarter 4**
Recommendation: Receive and file the City and Fire District's Treasurer's Report for the quarter ended June 30, 2026.

PUBLIC HEARINGS

9. **Backflow Prevention and Cross-Connection Control Ordinance**
Recommendation: Waive first reading, read by title only, and adopt an Ordinance to amend the American Canyon Municipal Code adding Chapter 13.08 to Title 13 relating to backflow prevention and cross-connection control; amending Chapter 13.04 relating to water and sewer systems; amending Chapter 13.06 relating to water rates and connection fees; amending Section 16.14.080 relating to irrigation efficiency; amending Section 19.51.060 relating to standard conditions of approval; amending Title 14 relating to sewer and sanitation services; and amending Title 1 relating to General Provisions.

BUSINESS

10. **Utility Finance Update**
Recommendation: Receive and file the Utility Finance Update presentation and provide any desired direction to staff regarding utility enterprise operations and financial planning.

11. **Sites Reservoir Project**
Recommendation: Receive financing information on the Sites Reservoir Project

12. **2025 Urban Water Management Plan Update**
Recommendation: Review and comment on the Draft 2025 Urban Water Management Plan.

13. **Voting Delegate and Alternate(s) for the League of California Cities 2026 Annual Business Meeting**
Recommendation: Approve by Minute Order a Voting Delegate and Alternate(s) for the League of California Cities 2026 Annual Business Meeting.

MANAGEMENT / STAFF ORAL REPORTS

14. **Utility Update**

CITY COUNCIL COMMENTS / COMMITTEE REPORTS

City Council may provide brief comments on matters of public concern, announce matters of public interest, and provide Council Committee reports. No action will be taken.

15. **City Council Committee Report - Mayor Pierre Washington**

FUTURE AGENDA ITEM REVIEW

The City Council will review upcoming agenda items. Councilmembers may request that items be added to future City

Council agendas.

16. Future Agenda Items of Note

ADJOURNMENT

CERTIFICATION

I, Taresa Geilfuss, City Clerk for American Canyon, do hereby declare that the foregoing agenda was posted in compliance with the Brown Act prior to the meeting date.

_____

Taresa Geilfuss, City Clerk

PUBLIC PARTICIPATION

This meeting is a limited public forum. The City expects respectful conduct from all participants. Offensive language or discriminatory remarks based on any protected classification under federal, state, or local law will not be tolerated, and the speaker may be immediately disconnected.

Meetings are conducted in person and are also available via Zoom. Meetings are broadcast live on Napa Valley TV, the City's website, and YouTube.

Zoom Link: Click here. **Webinar ID:** 847 1017 1711. **Passcode:** 123456. **Phone-in:** (408) 638-0968

Oral Comments: In person during Open/Closed Session, or via Zoom during Open Session only. Use "Raise Your Hand" during public comment periods only.

Written Comments: Submit via eComments on the City's Meetings & Agendas webpage. eComments close at 3:00 p.m. on the day of the meeting.

Agenda Materials: Posted 72 hours in advance at www.americancanyon.gov.

ADA: Requests for accommodations or alternative formats must be submitted at least three calendar days in advance to the City Clerk at 4381 Broadway, Suite 201, American Canyon, CA 94503 or cityclerk@americancanyon.gov.

Need Additional Assistance? Contact the City Clerk by phone at (707) 647-4369 or by email at cityclerk@americancanyon.gov.

CITY OF AMERICAN CANYON
PROCLAMATION

Recognizing Chris Morris for 18 Years of Dedicated Service

WHEREAS, Chris Morris dedicated 18 years and 5 months of service to the City of American Canyon, beginning his career in December 2007 as a Maintenance Worker II and serving until his departure in April 2026; and

WHEREAS, Chris advanced through the Public Works Department through his commitment, technical expertise, and leadership, serving as a Senior Worker before being promoted to Wastewater Collections Supervisor in October 2017; and

WHEREAS, over the course of his career, Chris developed extensive knowledge of the City's wastewater collection system and became a trusted resource to employees, supervisors, management, contractors, and community members; and

WHEREAS, his experience and historical perspective proved invaluable in the development and editing of the City's Sewer System Management Plan (SSMP), emergency response, operational decision-making, and the training of Public Works staff; and

WHEREAS, Chris generously shared his expertise with fellow employees, helping prepare the next generation of staff to safely and effectively operate and maintain the City's wastewater collection infrastructure; and

WHEREAS, Chris built strong relationships throughout the American Canyon community and consistently demonstrated professionalism, dedication, and a strong commitment to public service; and

WHEREAS, during more than 18 years with the City, Chris contributed to the growth and evolution of American Canyon and its Public Works operations, leaving a lasting impact on the wastewater collection system, his colleagues, and the community he served;

NOW, THEREFORE, I, Pierre Washington, on behalf of the City Council, do hereby recognize and express sincere appreciation to Chris Morris for his dedicated service to the City of American Canyon and its residents.

The City Council further commends Chris for his leadership, professionalism, technical expertise, mentorship, and many contributions to the Public Works Department, and wishes him continued success and fulfillment in the next chapter of his life.

Dated: August 18, 2026

_____

Pierre Washington, Mayor

CITY OF AMERICAN CANYON
REGULAR CITY COUNCIL MEETING

ACTION MINUTES
August 4, 2026

4:30 P.M. OPEN SESSION - REGULAR MEETING

CALL TO ORDER - OPEN SESSION
The City Council meeting was called to order at 4:30 p.m.

PLEDGE OF ALLEGIANCE
The Pledge of Allegiance was recited.

ROLL CALL - OPEN SESSION
Present: Councilmember Brando Cruz, Councilmember Melissa Lamattina, Councilmember David Oro, Vice Mayor Mark Joseph, Mayor Pierre Washington
Absent: None

PUBLIC COMMENT - ITEMS NOT ON THE AGENDA
Mayor Washington opened a public comment period. Written comments: none. Oral comments: Beth Goff was called to speak; Justin Hamilton Hole was called to speak. The public comment period was closed.

AGENDA CHANGES
There were no changes to the agenda.

CONSENT CALENDAR

Action: Motion to adopt CONSENT CALENDAR made by Vice Mayor Mark Joseph, seconded by Councilmember Melissa Lamattina, and CARRIED by roll call vote.

Yea: Councilmember Brando Cruz, Councilmember Melissa Lamattina, Councilmember David Oro, Vice Mayor Mark Joseph, Mayor Pierre Washington
Nay: None
Abstain: None
Absent: None

1. Minutes of July 21, 2026
Action: Approved the minutes of the Regular City Council meeting held July 21, 2026.

2. Minutes of the July 21, 2026, Special Joint City Council and Planning Commission Meeting
Action: Approved the minutes of the Special Joint City Council and Planning Commission meeting held July 21, 2026.

3. Notice of Completion for the Northampton and Silver Oak Park Restroom Projects (PR23-0500 & PR23-0700)
Action: Adopted Resolution 2026-64 accepting the contracted work as complete, authorizing the Public Works Director to file a Notice of Completion (Agreement 2026-15-R), and releasing Retention payment to Benchmark Civil Construction, Inc. in conjunction with the Northampton and Silver Oak Park Restroom Projects (PR23-0500 & PR23-0700).

FUTURE AGENDA ITEM REVIEW

4. Future Agenda Items of Note
Future agenda items were reviewed.

> **Action:** Motion to discuss Economic Development in the Industrial Park made by Vice Mayor Mark Joseph, seconded by Councilmember Melissa Lamattina, and CARRIED by roll call vote.
>
> **Yea:** Councilmember Brando Cruz, Councilmember Melissa Lamattina, Councilmember David Oro, Vice Mayor Mark Joseph, Mayor Pierre Washington
> **Nay:** None
> **Abstain:** None
> **Absent:** None

ADJOURNMENT

The City Council meeting was adjourned at 4:39 p.m.

CERTIFICATION

Respectfully Submitted,

_____
Taresa Geilfuss, City Clerk

TITLE

Contract Award for South Kelly-Highway 29 Intersection Project (TR23-0200)

RECOMMENDATION

Adopt a Resolution 1) awarding a Construction Contract to Carone and Company, Inc. in the amount of $3,128,499.50, 2) authorizing the City Manager to execute a reimbursement agreement between the City of American Canyon and the County of Napa to complete the construction of the Project for an amount not to exceed $2,149,156, 3) authorizing the City Manager to enter into an agreement for Construction Management and Inspection Services in an amount not to exceed $300,000, and 4) authorizing the Public Works Director to approve and execute contract change orders in an aggregate amount not to exceed the Construction Budget, in conjunction with the South Kelly-Highway 29 Intersection Project (TR23-0200).

CONTACT

Erica Ahmann Smithies, P.E., Public Works Director
Ron Ranada, P.E., Senior Civil Engineer

BACKGROUND & ANALYSIS

South Kelly Road and SR-29 Intersection Improvements

South Kelly Road is a two-lane collector providing access to the Napa Valley Business Park and Napa Logistics Park, carrying significant truck traffic and showing substantial pavement deterioration. The road is in failing condition and needs to be fully reconstructed. The roadway is split between jurisdictions: the north half of the road is in Napa County while the south half is in American Canyon.

Napa Logistics Park Phase 2 (NLP2), a development located less than a mile away, completed an Environmental Impact Report (EIR) in 2015 that identified needed circulation improvements, including upgrades at the SR-29/South Kelly Road intersection. As part of the project's Conditional Use Permit (CUP), the developer was required to construct public improvements along South Kelly Road, the SR-29 intersection, and the Devlin Road intersection.

In 2018, the City and the developer entered into a Subdivision Improvement and Reimbursement Agreement outlining these obligations. A 2022 amendment reduced the scope of required improvements based on an EIR Addendum and shifted the developer's responsibility from building the project to providing a payment to the City for a portion of construction of improvements. The

City has since programmed the South Kelly-Highway 29 Intersection Project (TR23-0200; "Project") into its on-going Capital Improvement Program.

Napa County Share (South Kelly Road) and Expanded Scope (Tower Road)

Because South Kelly Road is jointly owned, Napa County is partnering with American Canyon to ensure the entire roadway is reconstructed. To maximize efficiency, the County also requested adding nearby Tower Road reconstruction to the Project scope. The City has taken the lead in delivering the Project, with the intent that the County would reimburse the City for its portion of the Project cost. The City and County entered into Agreement 2024-A163 for the Project's design, and the County has been providing corresponding reimbursement payments.

The City and County desire to enter into a new agreement for the construction phase, in an amount not to exceed $2,149,156. The amount includes payment for costs related to the construction contract as well as construction management and inspection, and staff time. Napa County is anticipating taking their budget approval to the Board of Supervisors on September 15, 2026.

Additional Developer Improvements for Napa Airport Corporate Center

The Napa Airport Corporate Center (NACC) project includes conditions requiring installation of a recycled water main and various public right-of-way improvements along South Kelly Road. Because the City's reconstruction of South Kelly Road will occur before NACC development begins, incorporating these improvements into the City's Project will prevent future damage to the new roadway. The developer, G3 Enterprises, supports this approach. A reimbursement agreement for G3's fair-share contribution is being finalized and will be presented to City Council at a later date.

With the completion of the design of the above improvements (excepting improvements within State Route 29) the City solicited competitive bids for the Project on May 26, 2026. The Engineer's Estimate was $3,720,000. On July 23, 2026, the following bids were received and publicly read aloud:

Bidder	Total Bid Amount
Carone and Company Inc.	$3,128,499.50
O.C. Jones and Sons, Inc.	$3,267,177.00
Team Ghilotti, Inc.	$3,353,763.00
Ghilotti Construction Company, Inc.	$3,477,176.20
Mountain Cascade, Inc.	$3,514,800.00
Ghilotti Bros., Inc.	$3,570,068.25
MARTIN BROTHERS CONSTRUCTION	$3,634,877.50
Goebel Construction, Inc.	$3,663,147.00
Argonaut Constructors	$3,785,221.00
Granite Rock Company	$4,008,168.50
Redgwick Construction Co.	$4,094,063.00

Bay Cities Paving and Grading Inc.	$4,350,789.24

The bid submitted by Carone and Company, Inc. ("Carone") in the amount of $3,128,499.50 was the apparent low bid. Staff has reviewed the bid from Carone and found it to be both responsive and responsible. Staff has verified the contractor's qualifications including valid Class A license, DIR registration, and references, and found them to be satisfactory and acceptable. The prices of the bid items reflect reasonable and customary costs of completing the work.

Staff recommends the Council award a construction contract to Carone in the amount of $3,128,499.50 and authorize the Public Works Director to approve and execute contract change orders in an aggregate amount not to exceed the Construction Budget, in conjunction with the South Kelly-Highway 29 Intersection Project (TR23-0200). Staff further recommends the Council authorize the City Manager to execute a reimbursement agreement between the City and County for the construction of the Project for an amount not to exceed $2,149,156.

SR-29 State Highway Improvements Update

The Project includes turn lane and widening improvements at the SR-29/South Kelly Road intersection, within State Right-of-Way. In coordination with Caltrans, the City is continuing to pursue its application for a *Request for Cooperative Agreement* (RCA), through which Caltrans would deliver the desired improvements that lie within State Right-of-Way. The City is continuing to coordinate with Caltrans on the development of the agreement. Once finalized, the final agreement will be brought to Council for approval.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Transportation: "Improve the transportation network within the City to alleviate congestion and enhance the quality of life for the community."

FISCAL IMPACT

The FY26-27 Capital Budget currently provides for the following Project Budget:

Fund	**Budget**
Capital Projects (Fund 350)*	$4,036,068
Measure U (Fund 211)	$1,568,932
Total	**$5,605,000**

*Fund 350 includes approximately $2.4 million in estimated County-reimbursement, and $1.5 million in estimated developer-contributions and/or reimbursement.

The estimated Construction Budget for construction of the improvements slated with the Carone contract are as follows:

Item Description	Estimated Cost
Construction Contract	$3,128,500
Construction Contingency (15%)	$ 470,000
Materials Testing Services	$ 50,000
Construction Management and Inspection	$ 300,000
Staff	$ 50,000
Total	**$3,998,500**

After deducting all existing encumbrances and material services paid to date, the remaining FY26-27 Capital Budget is $5.2 million, which is sufficient to cover the construction expenses noted above, as well as the anticipated cost of the Caltrans RCA.

Due staff availability and overall workload, delivery of the Project's construction phase requires the aid of consultant-provided Construction Management and Inspection services. Staff is seeking to procure these services from the City's current on-call list, with a budget not to exceed $300,000, as noted above . Thus, staff recommends the Council authorize the City Manager to enter into an agreement with a consultant, as yet to be determined, for an amount not to exceed $300,000 for Construction Management and Inspection Services, in conjunction with the Project.

ENVIRONMENTAL REVIEW

South Kelly Road and SR-29

The project improvements to South Kelly Road and SR-29 were first identified in a 2015 EIR prepared by First Carbon Solutions, which was subsequently amended in June 2022. The 2022 Initial Study/Addendum determined that there was no potential for new or more severe significant environmental impacts, and no subsequent EIR was required to complete the project.

Tower Road

The Tower Road reconstruction is Categorically Exempt from CEQA per CEQA Guidelines Sections 15301(c) (Existing Facilities) and 15302 (Replacement or Reconstruction).

COMMUNICATION

Level 3: Broad Communication

There will be anticipated lane closures and/or detours during construction. Broad communication is anticipated with this project and will require continued collaboration with our project partner, Napa County, and the American Canyon Chamber of Commerce.

ATTACHMENTS:

1. Resolution

2. Exhibit A - Reimbursement Agreement
3. South Kelly-Hwy 29 Intersection Project Plan Exhibits

RESOLUTION NO. 2026-

RESOLUTION 1) AWARDING A CONSTRUCTION CONTRACT TO CARONE AND COMPANY, INC. IN THE AMOUNT OF $3,128,499.50, 2) AUTHORIZING THE CITY MANAGER TO EXECUTE A REIMBURSEMENT AGREEMENT BETWEEN THE CITY OF AMERICAN CANYON AND THE COUNTY OF NAPA TO COMPLETE THE CONSTRUCTION OF THE PROJECT FOR AN AMOUNT NOT TO EXCEED $2,149,156, 3) AUTHORIZING THE CITY MANAGER TO ENTER INTO AN AGREEMENT FOR CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES IN AN AMOUNT NOT TO EXCEED $300,000, AND 4) AUTHORIZING THE PUBLIC WORKS DIRECTOR TO APPROVE AND EXECUTE CONTRACT CHANGE ORDERS IN AN AGGREGATE AMOUNT NOT TO EXCEED THE CONSTRUCTION BUDGET, IN CONJUNCTION WITH THE SOUTH KELLY-HIGHWAY 29 INTERSECTION PROJECT (TR23-0200)

WHEREAS, the South Kelly-Highway 29 Intersection Project (TR23-0200; Project) has been incorporated into the adopted FY26-27 CIP Budget for the purpose of delivering improvements to South Kelly Road between SR-29 and Devlin Road, the intersection of SR-29 and South Kelly Road, and the intersection of Devlin Road and South Kelly Road as required by the Napa Logistics Park Phase 2 (NLP2) Project Conditional Use Permit (Resolution 2015-107); and

WHEREAS, the City of American Canyon (City) and Napa County (County) each have jurisdiction over discrete portions of South Kelly Road, and both agencies jointly desire to partner for the overall improvement of the road; and

WHEREAS, Napa County has requested that the City of American Canyon oversee the delivery of the desired improvements to South Kelly Road; and

WHEREAS, to maximize efficiency and benefit from economies of scale, Napa County has further requested the Project improvements include the pavement rehabilitation of Tower Road in unincorporated Napa County; and

WHEREAS, the City and County entered into a reimbursement agreement (2024-A163) to facilitate the County's payment for its share of the design services, including City administration and staff costs; and

WHEREAS, the City and County must enter into a new and separate reimbursement agreement to facilitate the County's payment for its share of construction of the Project, including City administration and staff costs; and

WHEREAS, the Napa Airport Corporate Center (NACC) Project conditions of approval (Resolution 2018-86 and 2018-87) requires the developer to construct public improvements to accommodate the new development, including extension of the recycled water main, storm drain facilities, connections to the domestic water main on South Kelly Road, and concrete improvements within the State right-of-way; and

WHEREAS, the developer of the NACC Project, G3 Enterprises, will be reimbursing the cost of construction of the conditioned improvements through a reimbursement agreement which is currently being finalized; and

WHEREAS, the City solicited competitive bids for the Project on May 26, 2026, and on July 23, 2026, the following bids were received and publicly read aloud; and

Bidder	**Total Bid Amount**
Carone and Company Inc.	$3,128,499.50
O.C. Jones and Sons, Inc.	$3,267,177.00
Team Ghilotti, Inc.	$3,353,763.00
Ghilotti Construction Company, Inc.	$3,477,176.20
Mountain Cascade, Inc.	$3,514,800.00
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MARTIN BROTHERS CONSTRUCTION	$3,634,877.50
Goebel Construction, Inc.	$3,663,147.00
Argonaut Constructors	$3,785,221.00
Granite Rock Company	$4,008,168.50
Redgwick Construction Co.	$4,094,063.00
Bay Cities Paving and Grading Inc.	$4,350,789.24

WHEREAS, staff has reviewed the apparent low bid from Carone and Company, Inc. and found it to be both responsive and responsible; and

WHEREAS, staff has verified the contractor's qualifications and references, and found them to be satisfactory and acceptable; and

WHEREAS, staff finds the prices of the Bid Items reasonable and customary costs for completing the work; and

WHEREAS, due to present staffing and workload, Construction Management and Construction Inspection services from the current on-call professional services list are needed to deliver the Project construction; and

WHEREAS, there are sufficient funds in the FY2026-2027 Capital Budget to cover the estimated Construction Budget:

Item Description	**Estimated Cost**
Construction Contract	$3,128,500
Construction Contingency (15%)	$ 470,000
Materials Testing Services	$ 50,000
Construction Management and Inspection	$ 300,000
Staff	$ 50,000
Total	**$3,998,500**

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby 1) awards a construction contract to Carone and Company, Inc. in the amount of $3,128,499.50; 2) authorizes the City Manager to execute a reimbursement agreement between the City of American Canyon and the County of Napa to complete the construction of the Project for an amount not to exceed $2,149,156, 3) authorizes the City Manager to enter into an agreement for Construction Management and Inspection Services in an amount not to exceed $300,000, and 4) authorizes the Public Works Director to approve and execute change orders in an aggregate amount not to exceed the Construction Budget in conjunction with the South Kelly-Highway 29 Intersection Project (TR23-0200).

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 18th day of August, 2026 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

_____
Taresa Geilfuss, CMC, City Clerk

APPROVE AS TO FORM:

_____
Matt Summers, City Attorney

CITY AGREEMENT NO. 2026 – _____

NAPA COUNTY AGREEMENT NO. _____

AGREEMENT BETWEEN CITY OF AMERICAN CANYON AND NAPA COUNTY REGARDING THE CONSTRUCTION OF THE SOUTH KELLY & SR-29 INTERSECTION PROJECT (TR23-0200)

This Agreement ("Agreement") is entered into and effective as of _____, _____, by and between Napa County, a political subdivision of the state of California ("COUNTY") and the City of American Canyon, a California general law city ("CITY") (each a "PARTY" and collectively, the "PARTIES").

RECITALS

WHEREAS, CITY plans to construct roadway improvements, including, but not limited to, full depth reclamation (FDR), new asphalt surface, striping, curb ramp improvements and related curb and utility adjustments for the South Kelly & SR-29 Intersection Project (the "CITY PROJECT"), as described in the CITY's contracting documents; and

WHEREAS, the CITY PROJECT includes improvements on COUNTY-owned assets within the COUNTY's Jurisdiction as noted by the multiple bid items in Exhibits "A" and "B", as well as work performed by CITY staff and its consultants as noted in Exhibit "C" ("WORK"); and

WHEREAS, COUNTY has agreed to reimburse CITY for costs of the WORK; and

WHEREAS, the CITY will contract with contractor to perform the WORK ("CONTRACTORS"), and the CITY shall select and contract with such CONTRACTOR in accordance with all applicable public contract laws, including prevailing wage requirements; and

WHEREAS, the CITY's Council has or will approve the design of the reconstruction relating to the CITY PROJECT including the WORK; and

WHEREAS, the Parties wish to memorialize the terms and conditions of COUNTY's agreement to reimburse CITY for costs associated with the COUNTY's share of WORK described in Exhibits "A," and "B," and "C."

TERMS

NOW, THEREFORE, COUNTY and CITY, for the mutual consideration described herein, agree as follows:

1. **Scope of Work Subject to Cost Sharing.** CITY shall cause its CONTRACTOR to perform all WORK for COUNTY owned assets, as described by the multiple bid items in

the Bid Schedules as summarized in Exhibit "A" and "B." CITY shall provide or contract for materials testing services and shall provide staff time for construction support as summarized in Exhibit "C." The COUNTY's share of the total cost of WORK shall not exceed $2,149,156 as summarized in Exhibit "C".

2. Construction of the Project.

A. *Procurement*. CITY will conduct and be responsible for the procurement of all contracts associated with the construction of the WORK, including selecting and awarding the contract to the lowest responsive and responsible bidder for construction.

B. *Construction Management and Inspection*. All Parties shall be allowed access to the WORK area, subject to traffic controls and safety precautions during construction of the WORK for inspections during the progress of the WORK. CITY and COUNTY shall coordinate a mutually acceptable date and time for joint inspections and *provided*, *further*, that CITY shall be responsible for all construction management and inspection oversight of the WORK.

C. *Notice of Completion.* Prior to CITY accepting the work of the selected construction CONTRACTOR and/or filing a Notice of Completion, CITY shall allow COUNTY ten (10) business days to inspect all WORK performed by CONTRACTOR. CITY shall not accept the CONTRACTOR's work and file the Notice of Completion for the work until COUNTY has informed the CITY that it accepts the WORK performed by CONTRACTOR or the ten (10) business day COUNTY inspection period has expired. COUNTY may reject the WORK for reasonable cause solely if the WORK does not materially conform with the description in the bid item listed in Exhibits "A" and "B". In such case, the CITY will direct its CONTRACTOR to remediate any non-conforming WORK.

D. *Review and Standards.* The WORK shall be performed in accordance with the CITY's contracting documents.

E. *Facility Access.* CITY shall provide COUNTY with reasonable access to inspect its facilities during the course of the WORK, subject to traffic control and safety precautions.

3. Project Cost, Payments, and Compensation,

A. *Responsibility for Cost of WORK*. COUNTY, CITY, and the developer shall each be responsible for bearing its prorated share of WORK as generally set forth in Exhibits "A," "B," and "C" to this Agreement.

COUNTY agrees to pay CITY for the actual cost of the WORK performed by CITY and CITY's CONTRACTOR, including the materials and labor costs for the WORK, in accordance with the terms of this Agreement and as described in Section 1.

Prorated costs of Lump Sum Items, including consultant services shall be adjusted accordingly. This Agreement requires COUNTY to pay the expenses as defined above in accordance with the procedures in this Section 3

B. *Payment Upon Invoice*. In accordance with Section 3(A) herein, COUNTY shall reimburse CITY within thirty (30) calendar days of COUNTY's receipt of a monthly invoice from CITY for the WORK. CITY shall present invoices on a monthly basis along with CONTRACTOR's certified payroll.

C. *Damage Responsibility*. COUNTY shall not be responsible for the cost to repair or replace any COUNTY facilities damaged by the CITY PROJECT, except for damages arising from the negligence or willful acts of COUNTY or its officers, agents, employees, or volunteers.

4. Ownership, Maintenance and Operation of the Project.

A. *Ownership of the Project*. Prior to CITY accepting the WORK of CONTRACTOR and/or filing a Notice of Completion, CITY shall address any close-out issues reasonably identified by COUNTY that is consistent with the description of the WORK set forth in the various bid items listed in Exhibits "A" and "B" and once addressed, CITY shall request COUNTY accept the improvements.

B. *Guarantees:* All work performed and equipment or material furnished shall be guaranteed for (1) year from date of acceptance against any inherent or developed defects of materials or workmanship in manufacture or installation. All guarantees normally provided by manufacturers of equipment or material installed under this project shall be furnished to CITY and shall remain in force for their normal life. If COUNTY identifies defects covered via warranty a notice shall be sent to CITY pursuant to Section 14 (Notices) and CONTRACTOR shall be notified to coordinate repairs.

C. *Operation of the Project*. Upon completion of the WORK, COUNTY shall be responsible for all maintenance costs associated with COUNTY owned utilities and roadways.

5. Access to Records / Document Retention. CITY will maintain documents relating to the WORK, including construction drawings and other information regarding the construction, for a period of no less than five (5) years following completion of the WORK, and provide all design and construction documents to COUNTY in electronic format. Financial records associated with the WORK, including payables records, receivable records and grants receivable records, shall be maintained by the Party owning such records for a period of no less than five (5) fiscal years after the completion of the WORK. COUNTY or the duly authorized representatives of COUNTY, shall have access to any books, documents, papers and records of CITY which are directly pertinent to the subject matter of this Agreement for the purpose of making audit, examination, excerpts and transcriptions.

6. **Term of this Agreement.** The term of this Agreement shall commence on the date first above written and shall continue in effect until either PARTY submits a written termination notice giving the other PARTY thirty (30) days written notice and when all payments for provided invoices have been made to COUNTY, unless earlier terminated pursuant to Section 18; except that the obligations of the PARTIES under Paragraphs 5 (Access to Records / Document Retention), 7 (Insurance) and 8 (Indemnification) shall continue in full force and effect after said expiration date or early termination in relation to acts or omissions occurring prior to such dates during the term of this Agreement.

7. **Insurance.** The CITY shall cause the CONTRACTORS to obtain and maintain in full force and effect throughout the term of this Agreement, the following insurance coverage and shall provide evidence of such coverage to COUNTY upon request:

A. *Workers' Compensation Insurance*. Workers' compensation insurance for the performance of any of duties under this Agreement, including but not limited to, coverage for workers' compensation and employer's liability and a waiver of subrogation against County.

B. *Liability Insurance*.

(1) *General Liability*. Commercial or comprehensive general liability insurance coverage (personal injury and property damage) of not less than TWO MILLION DOLLARS ($2,000,000) combined single limit per occurrence, covering liability or claims for any personal injury, including death, to any person and/or damage to the property of any person arising from the acts or omissions of that Party under this Agreement. If the coverage includes an aggregate limit, the aggregate limit shall be no less than twice the per occurrence limit.

(2) *Comprehensive Automobile Liability Insurance*. A comprehensive automobile liability insurance policy (Bodily Injury and Property Damage) on owned, hired, leased and non-owned vehicles used in conjunction with that PARTY's activities under this Agreement of not less than ONE MILLION DOLLARS ($1,000,000) combined single limit per occurrence. If the coverage includes an aggregate limit, the aggregate limit shall be no less than twice the per occurrence limit.

C. *Certificates of Coverage*. Insurance coverages referenced in 7(B), above, shall be evidenced by one or more certificates of coverage or, by other evidence of coverage acceptable to COUNTY's Risk Manager, which shall be available upon request.

(1) The certificate(s) or other evidence of coverage provided by the CONTRACTOR shall reference this Agreement by the CITY or COUNTY number or title and department; shall be kept current during the term of this Agreement; shall provide that the COUNTY shall be given no less than thirty (30) days prior written notice of any non-renewal, cancellation, other termination, or material change, except that only ten (10) days prior written notice shall be required where the cause of non-renewal or cancellation is non-payment of premium; and shall provide that the inclusion of more than one insured shall not operate to impair the rights of one

insured against another insured, the coverage afforded applying as though separate policies had been issued to each insured, but the inclusion of more than one insured shall not operate to increase the limits of the company's liability.

(2) Waiver of Subrogation and Additional Insured Endorsements. For the commercial general liability insurance coverage referenced in 7(B)(1) and, for the comprehensive automobile liability insurance coverage referenced in 7(B)(2) where the vehicles are covered by a commercial policy rather than a personal policy, the CONTRACTOR shall also file with the evidence of coverage and endorsement from the insurance provider naming the CITY and COUNTY, its officers, employees, agents and volunteers as well as the STATE of CALIFORNIA as additional insureds and waiving subrogation. For the Workers' Compensation insurance coverage, the CONTRACTOR shall file with the evidence of coverage an endorsement waiving subrogation.

(3) The certificate or other evidence of coverage shall provide that if the same policy applies to activities of a Party not covered by this Agreement, then the limits in the applicable certificate relating to the additional insured coverage of the other Party shall pertain only to liability for activities of the insured Party under this Agreement, and that the insurance provided is primary coverage with respect to any insurance or self-insurance programs maintained by the other Party. The additional insured endorsements for the general liability coverage shall use Insurance Services Office (ISO) Form No. CG 20 09 11 85 or CG 20 10 11 85, or equivalent, including (if used together) CG 2010 10 01 and CG 2037 10 01; but shall not use the following forms: CG 20 10 10 93 or 03 94.

D. *Inclusion in Subcontracts*. CITY shall cause all contractors and subcontractors and any other entity or person who is involved in providing services under this Agreement to comply with the insurance requirements set forth in this Paragraph 7.

8. Indemnification.

A. *By COUNTY*. COUNTY shall defend, indemnify and hold harmless CITY and the officers, agents and employees of CITY from any claim, loss or liability including without limitation, those for personal injury (including death) or damage to property (collectively, "Liability"), arising out of or connected with COUNTY's negligent performance or material breach of its obligations under this Agreement.

B. *By CITY*. CITY shall defend, indemnify and hold harmless COUNTY and the officers, agents and employees of COUNTY from any liability, arising out of or connected with CITY's negligent performance or material breach of its obligations under this Agreement.

C. Each Party shall notify the other Party immediately in writing of any claim or damage related to activities performed under this Agreement. The Parties shall cooperate with each other in the investigation and disposition of any claim arising out of the

activities under this Agreement, provided that nothing shall require either Party to disclose any documents, records or communications that are protected under peer review privilege, attorney-client privilege, or attorney work product privilege.

9. **Ongoing Duties and Responsibilities.** In addition to the Parties' duties and responsibilities as described in other sections of this Agreement, the Parties acknowledge and agree to perform the following on an ongoing basis until the WORK is completed:

   A. *Regular Staff Meetings*. The respective staffs of COUNTY and CITY and their retained consultants or contractors, will meet as needed to address matters contained in this Agreement.

   B. *Commitment of Staff and Resources*. COUNTY and CITY will each provide sufficient staff and/or resources to this process to efficiently meet the goals and tasks set forth in this Agreement.

10. **Warranty of Legal Authority.** Each Party warrants and covenants that it has the present legal authority to enter into this Agreement and to perform the acts required of it hereunder. If any Party is found to lack the authority to perform the acts required of it hereunder or is prevented from performing the acts by a court of competent jurisdiction, this Agreement shall be void.

11. **Severability.** If any provision of this Agreement, or any portion thereof, is found by any court of competent jurisdiction to be unenforceable or invalid for any reason, such provision shall be severable and shall not in any way impair the enforceability of any other provision of this Agreement.

12. **Attorneys' Fees.** In the event that either Party commences legal action of any kind or character to enforce the provisions of this Agreement or to obtain damages for breach thereof, the prevailing Party in such litigation shall be entitled to all costs and reasonable attorneys' fees incurred in connection with such action.

13. **No Waiver.** The waiver by either Party of any breach or violation of any requirement of this Agreement shall not be deemed to be a waiver of any such breach in the future, or of the breach of any other requirement of this Agreement.

14. **Notices.** All notices required or authorized by this Agreement shall be in writing and shall be delivered in person or by deposit in the United States mail, by certified mail, postage prepaid, return receipt requested. Any mailed notice, demand, request, consent, approval or communication that either Party desires to give the other Party shall be addressed to the other Party at the address set forth below. Any notice sent by mail in the manner prescribed by this paragraph shall be deemed to have been received on the date noted on the return receipt or five days following the date of deposit, whichever is earlier. The Parties further agree to send supplemental notice by the email as identified below.

***City of American Canyon*:**

Director of Public Works
4381 Broadway Street
American Canyon, CA 94503

Email: esmithies@americancanyon.gov; rranada@americancanyon.gov

***Napa County*:**
Director of Public Works
1195 Third Street, Suite 101
Napa, CA 94559

Email: steven.lederer@countyofnapa.org; juan.arias@countyofnapa.org

Changes may be made to the addresses where notices are to be delivered by giving notice pursuant to this provision.

15. **Entire Agreement.** This Agreement, including any documents expressly incorporated by reference whether or not attached hereto, constitutes the entire agreement between the Parties relating to the subject of this Agreement and supersedes all previous agreements, promises, representations, understandings and negotiations, whether written or oral, among the Parties with respect to the subject matter hereof. amendment of this Agreement

16. **Amendment / Modification**. Except as specifically provided herein, this Agreement may be modified or amended only in writing signed by both PARTIES. In particular, only COUNTY in the form of a written amendment of this AGREEMENT, may authorize extra and/or changed work if beyond the scope of COUNTY WORK described in Section 1 above. Failure of CITY to secure such authorization in writing in advance of performing any of the extra or changed work shall constitute a waiver of any and all rights to adjustment in the contract price or contract time and no compensation shall be paid for such extra work.

17. **Recitals Adopted.** The Parties hereby agree to and adopt the Agreement recitals as portions of this Agreement.

18. **Termination.** The termination shall be effective upon the COUNTY's payment to CITY of any amounts owed by COUNTY hereunder.

19. **Governing Law, Jurisdiction, and Venue**. The interpretation, validity, and enforcement of this Agreement will be governed and interpreted in accordance with the laws of the State of California. Any suit, claim, or legal proceeding of any kind related to this Agreement will be filed and heard in a court of competent jurisdiction in the County of Napa.

20. **Counterparts**. This Agreement may be executed in counterparts, each one of which is deemed an original, but all of which together constitute a single instrument.

21. **Signatures**. The individuals executing this Agreement represent and warrant that they have the right, power, legal capacity, and authority to enter into and to execute this Agreement on behalf of the respective legal entities of the COUNTY and CITY.

22. **Electronic Signatures**. Each Party agrees that the electronic signatures, whether digital or encrypted, of the Parties included in this Agreement, are intended to authenticate this writing and to have the same force and effect as manual signatures. The term "electronic signature" means any electronic sound, symbol, or process attached to or logically associated with a record and executed and adopted by a party with the intent to sign such record, including facsimile or email electronic signatures. Without limiting the generality of the foregoing, delivery of an executed counterpart's signature page of this Agreement, by facsimile, electronic mail in portable document format (.pdf) or by any other means intended to preserve the original graphic and pictorial appearance of a document, has the same effect as delivery of an executed original of this Agreement.

[Signatures on the following page]

IN WITNESS WHEREOF, this AGREEMENT was executed by the PARTIES hereto as of the date first above written.

CITY:

CITY OF AMERICAN CANYON, a California Law City

By: _____
Jason B. Holley, City Manager

ATTEST:

_____
Taresa Geilfuss, City Clerk

APPROVED AS TO FORM

_____
Matthew T. Summers, City Attorney

COUNTY:

NAPA COUNTY, a political subdivision of the State of California

By: _____
AMBER MANFREE
Chair of the Board of Supervisors

APPROVED AS TO FORM Office of County Counsel	APPROVED BY THE NAPA COUNTY BOARD OF SUPERVISORS	ATTEST: NEHA HOSKINS Clerk of the Board of Supervisors
By: *Ryan FitzGerald* (e-sign) Deputy County Counsel Date: June 30, 2026	Date: _____ Processed By: _____ Deputy Clerk of the Board	By: _____

EXHIBIT A

CITY OF AMERICAN CANYON BID DOCUMENTS

"Bid Schedule A: South Kelly Road" TR23-0200

Item No.	Item Description	Qty	Unit	City Share	County Share	Developer Share
A.1	Mobilization and Demobilization	1	LS	61.2%	25.1%	13.7%
A.2	Storm Water Pollution Prevention Plan	1	LS	61.2%	25.1%	13.7%
A.3	Traffic Control	1	LS	61.2%	25.1%	13.7%
A.4	Potholing	10	EA	50%	50%	-
A.5	Monuments	3	EA	50%	50%	-
A.6	Earthwork	850	CY	50%	50%	-
A.7	Aggregate Base	1480	CY	95.9%	4.1%	-
A.8	Asphalt Recycling	4060	SY	50%	50%	-
A.9	18" Full Depth Reclamation – Cement	4060	SY	50%	50%	-
A.10	Hot Mix Asphalt, Type A, 3/4-In Aggregate	2580	TON	69.1%	30.9%	-
A.11	Geosynthetic Pavement Interlayer	1130	SY	50%	50%	-
A.12	Minor Concrete – Sidewalk	4495	SF	54%	28.2%	17.8%
A.13	Minor Concrete – Curb and Gutter	995	LF	69.5%	20.5%	10%
A.14	Minor Concrete – Curb Ramp	535	SF	42.9%	42.9%	14.2%
A.15	Minor Concrete – Deepened Curb	275	LF	100%	-	-
A.16	12-In Reclaimed Water Main	500	LF	-	-	100%
A.17	12-In Reclaimed Water Gate Valve	2	EA	-	-	100%
A.18	Reclaimed Water Fire Hydrant	1	EA	-	-	100%
A.19	2-In Reclaimed Water Service	6	EA	33.3%	-	66.7%
A.20	2-In Domestic Water Service	2	EA	-	-	100%
A.21	10-In Fire Water Service	2	EA	-	-	100%
A.22	12-In Storm Drain Pipe	40	LF	100%	-	-
A.23	18-In Storm Drain Pipe	235	LF	82.1%	17.9%	-
A.24	24-In Storm Drain Pipe	25	LF	-	-	100%
A.25	Storm Drain Manhole	3	EA	83.3%	16.7%	-
A.26	Strom Drain Junction Structure	1	EA	33.3%	33.3%	33.3%
A.27	18-In x 18-in Precast Drainage Inlet	3	EA	100%	-	-
A.28	Bioretention Area	1155	SF	100%	-	-
A.29	Adjust Valve to Grade	8	EA	100%	-	-
A.30	Relocate Street Light	1	EA	-	100%	-
A.31	Pedestrian Push Button Assembly on 1B Pole	1	EA	-	-	100%
A.32	Solid Double Yellow Thermoplastic – Caltrans Standard 21	895	LF	50%	50%	-
A.33	Solid-Dashed Yellow Thermoplastic – Caltrans Standard 31	1370	LF	50%	50%	-

A.34	Median Crosshatch Yellow Thermoplastic – MUTCD 3B.24	3000	SF	100%	-	-
A.35	Solid White Thermoplastic – Caltrans Standard 38A	795	LF	50%	50%	-
A.36	Dashed White Thermoplastic – Caltrans Standard 9	680	LF	50%	50%	-
A.37	Solid White Thermoplastic – Caltrans Standard A24E	60	LF	50%	50%	-
A.38	Type II (L) Arrow – Caltrans A24B	90	SF	50%	50%	-
A.39	Type III (L) Arrow – Caltrans A24B	315	SF	50%	50%	-
A.40	Type III (R) Arrow – Caltrans A24B	270	SF	50%	50%	-
A.41	Stop Legend – Caltrans A24D	75	SF	50%	50%	-
A.42	Solid White Thermoplastic – Ladder Crosswalk – Caltrans Standard A24F	1610	SF	50%	50%	-
A.43	Solid White Thermoplastic – Continental Crosswalk – Caltrans Standard A24F	1385	SF	85.6%	14.4%	-
A.44	Red Curb Markings	110	LF	100%	-	-
A.45	Reflective Fire Hydrant Markers	2	EA	100%	-	-
A.46	Remove Roadside Sign	2	EA	50%	50%	-
A.47	Relocate Roadside Sign	3	EA	33.3%	66.6%	-
A.48	Pedestrian Barricade	3	EA	33.3%	33.3%	33.3%
A.49	Three-Wire Fence	860	LF	100%	-	-
A.50	Planting	1	LS	100%	-	-
A.51	Trash Capture Basket	15	EA	100%	-	-
A.52	Driveway Approach – Short Ramp	29	LF	-	-	100%

EXHIBIT B

CITY OF AMERICAN CANYON BID DOCUMENTS

"Bid Schedule B: Tower Road" TR23-0200

Item No.	Item Description	Qty	Unit	City Share	County Share
B.1	Mobilization and Demobilization	1	LS	-	100%
B.2	Storm Water Pollution Prevention Plan	1	LS	-	100%
B.3	Traffic Control	1	LS	-	100%
B.4	Potholing	8	EA	-	100%
B.5	Monuments	5	EA	-	100%
B.6	Earthwork	1040	CY	-	100%
B.7	Aggregate Base	650	CY	-	100%
B.8	Asphalt Recycling	9330	SY	-	100%
B.9	12" Full Depth Reclamation – Cement	9330	SY	-	100%
B.10	Hot Mix Asphalt, Type A, 1/2-In Aggregate	2580	TON	-	100%
B.11	Geosynthetic Pavement Interlayer	1460	SY	-	100%
B.12	Adjust Manhole Frame to Grade	9	EA	-	100%
B.13	Adjust Cleanout to Grade	2	EA	-	100%
B.14	Adjust Valve to Grade	49	EA	-	100%
B.15	Solid Double Yellow Thermoplastic – Caltrans Standard 21	200	LF	-	100%
B.16	Solid Yellow Thermoplastic – Caltrans Standard 22	200	LF	-	100%
B.17	Median Crosshatch Yellow Thermoplastic – MUTCD 3B.24	3000	SF	-	100%
B.18	Solid White Thermoplastic – Caltrans Standard 38B	200	LF	-	100%
B.19	Solid White Thermoplastic – Caltrans Standard A24E	32	LF	-	100%
B.20	Type I Arrow – Caltrans Standard A24E	14	SF	-	100%
B.21	Type II (R) Arrow – Caltrans A24B	180	SF	-	100%
B.22	Type IV (L) Arrow – Caltrans A24B	180	SF	-	100%
B.23	Stop Legend – Caltrans A24D	66	SF	-	100%
B.24	12-In Solid White Thermoplastic	210	LF	-	100%
B.25	Solid White Thermoplastic – Basic Crosswalk – Caltrans Standard A24F	1625	SF	-	100%
B.26	Solid White Thermoplastic – Ladder Crosswalk – Caltrans Standard A24F	425	SF	-	100%
B.27	Reflective Fire Hydrant Markers	9	EA	-	100%

EXHIBIT C

"Project Budget Summary" TR23-0200

TR23-0200 Construction Budget Summary

Item Description	Amount	Notes
Construction	$ 3,754,200.00	South Kelly & Tower Rd
Caltrans RCA	$ 765,000.00	SR-29 turn lane improvements - NLP2
Environmental Services	$ 20,000.00	Pre-construction surveys (M&A)
Materials Testing Services	$ 100,000.00	
Staff Time - Construction	$ 200,000.00	
TOTAL	$ 4,839,200.00	

Project Budget Breakdown	City	County	Developer (G3)	Total
Construction	$ 1,426,596.00	$ 1,989,726.00	$ 337,878.00	$ 3,754,200.00
Caltrans RCA	$ 765,000.00	$ -	$ -	$ 765,000.00
Environmental Services	$ 20,000.00	$ -	$ -	$ 20,000.00
Materials Testing Services	$ 38,289.60	$ 53,143.20	$ 8,567.20	$ 100,000.00
Staff Time - Construction	$ 76,579.21	$ 106,286.40	$ 17,134.39	$ 200,000.00
TOTAL	$ 2,326,464.81	$ 2,149,155.60	$ 363,579.59	$ 4,839,200.00

*Construction Reimbursement Cost for County shall not exceed $2,149,156 unless amended per Section 16 requirements.

PUBLIC IMPROVEMENT DRAWINGS FOR

SOUTH KELLY - HIGHWAY 29 INTERSECTION PROJECT

CITY PROJECT NUMBER TR23-0200

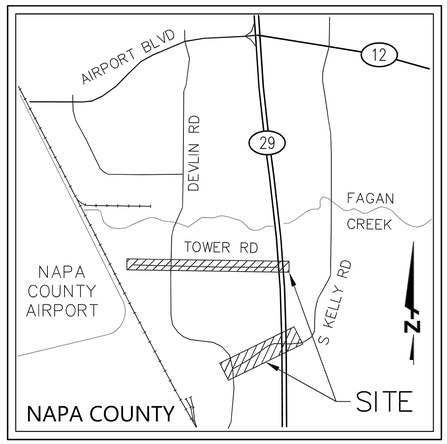
FOR THE CITY OF AMERICAN CANYON, CA

TOWER ROAD - STATE ROUTE 29 TO TERMINUS WEST OF DEVLIN ROAD
SOUTH KELLY ROAD - STATE ROUTE 29 TO DEVLIN ROAD

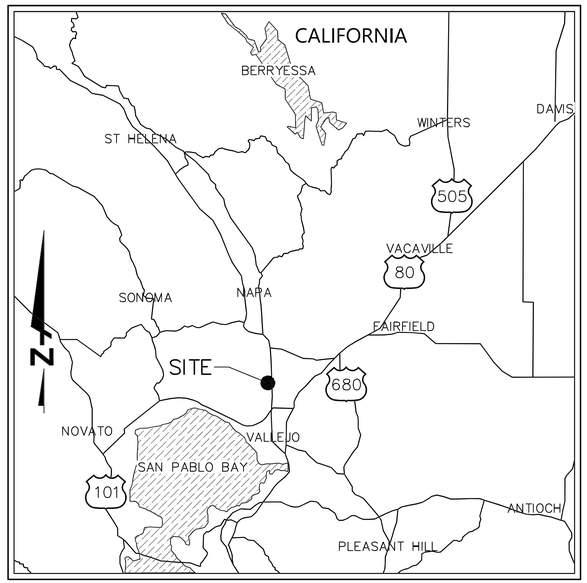
MAY 2026

INDEX OF DRAWINGS

SHEET	TITLE	NUMBER
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VICINITY MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

SYMBOLS & LEGEND

EXISTING / PROPOSED

- BENCHMARK
- IRON PIPE
- CENTERLINE MONUMENT
- BLOW OFF
- VALVE
- CHECK VALVE
- BACKFLOW PREVENTION DEVICE
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- POST INDICATOR VALVE
- REDUCER
- RISER
- LIGHT POLE
- STREET SIGN
- TRAFFIC SIGNAL
- STREET LIGHT
- UTILITY POLE
- GUY ANCHOR
- CATCH BASIN
- TREE
- TREE CLUSTER
- PROPERTY LINE
- BUILDING SETBACK
- EASEMENT
- CENTERLINE
- GRADE BREAK
- FLOW LINE
- FENCE
- TREE PROTECTION FENCE
- SANITARY SEWER
- STORM DRAIN
- WATER
- OVERHEAD UTILITY LINE
- UNDERGROUND UTILITY LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND GAS LINE
- UNDERGROUND TELECOM LINE
- ASPHALT FULL DEPTH RECLAMATION (FDR)
- ASPHALT
- ASPHALT CONFORM GRIND
- CL2AB SHOULDER
- CONCRETE
- DETECTABLE WARNING
- VALLEY GUTTER
- REMOVE EXISTING IMPROVEMENTS
- CLEAR AND GRUB
- REMOVE EXISTING FEATURE
- INVERT AT CLEANOUT
- KEYNOTE
- DETAIL IDENTIFICATION
- SHEET WHERE DETAIL IS SHOWN
- CROSS SECTION IDENTIFICATION
- SHEET WHERE CROSS SECTION IS SHOWN

OWNER: CITY OF AMERICAN CANYON
PUBLIC WORKS DEPARTMENT
4381 BROADWAY STREET, SUITE 201
AMERICAN CANYON, CA 94503
PH: (707) 647-4550

CIVIL ENGINEER: BKF ENGINEERS
111 SANTA ROSA AVE, STE. 100
SANTA ROSA, CA. 95404
PH: (707) 583-8500
FAX: (707) 583-8539

ABBREVIATIONS

±	MORE OR LESS	LED	LIGHT EMITTING DIODE
Δ	DELTA	LP	LIGHT POLE
AB	AGGREGATE BASE	MAX	MAXIMUM
AC	ASPHALT CONCRETE	MB	MAILBOX
APN	ASSESSOR'S PARCEL NUMBER	MH	MANHOLE
BC	BEGIN CURVE	MIN	MINIMUM
BCT	BEGIN CURB TRANSITION	MON	MONUMENT
BD	BRASS DISK	NO	NUMBER
BFP	BACKFLOW PREVENTER	NTS	NOT TO SCALE
BLDG	BUILDING	OVH	OVERHEAD UTILITY LINE
BLRD	BOLLARD	OR	OFFICIAL RECORDS
BM	BENCHMARK	PCC	PORTLAND CEMENT CONCRETE
BO	BLOWOFF	PG&E	PACIFIC GAS & ELECTRIC
BSL	BUILDING SETBACK LINE	PIV	POST INDICATOR VALVE
CB	CATCH BASIN	PL	PROPERTY LINE
CC	POINT OF COMPOUND CURVE	PUE	PUBLIC UTILITY EASEMENT
CL	CENTERLINE	PVI	POINT OF VERTICAL INTERSECTION
CL2	CLASS II	PVT	PRIVATE
CO	CLEAN OUT	R	RADIUS
CONC	CONCRETE	RC	POINT OF REVERSE CURVE
CY	CUBIC YARD	RSPR	RIPRAP ROCK SLOPE PROTECTION
DDC	DOUBLE DETECTOR CHECK	RTWL	RETAINING WALL
DI	DROP INLET	R/W	RIGHT OF WAY
DIA	DIAMETER	S=	SLOPE
DN	DOCUMENT NUMBER	SD	STORM DRAIN
DS	RAINWATER DOWN SPOUT	SDCO	STORM DRAIN CLEAN OUT
DW	DRIVEWAY	SDMH	STORM DRAIN MANHOLE
DYL	DOUBLE YELLOW LINE	SF	SQUARE FEET
E	ELECTRIC	SL	STREETLIGHT
ECT	END CURB TRANSITION	SO	SIDE OPENING
EG	EXISTING GROUND	SS	SANITARY SEWER
ELEV	ELEVATION	SSCO	SANITARY SEWER CLEAN OUT
EP	EDGE OF PAVEMENT	SSMH	SANITARY SEWER MANHOLE
ER	EDGE OF ROAD	STA	STATION
ESMT	EASEMENT	STD	STANDARD
EX	EXISTING	TB	TOP OF BOX
FDC	FIRE DEPARTMENT CONNECTION	TC	TOP FACE OF CURB
FDR	FULL DEPTH REPLACEMENT	TEL	TELECOMMUNICATION LINE
FF	FINISHED FLOOR	TF	TRANSFORMER
FG	FINISHED GRADE	TG	TOP OF GRATE
FH	FIRE HYDRANT	TS	TRAFFIC SIGNAL
FL	SURFACE FLOWLINE	TV	TELEVISION
FT	FOOT	TW	TOP OF WALL
G	GAS	TYP	TYPICAL
GB	GRADE BREAK	UB	UTILITY BOX
GI	GRATE INLET	UP	UTILITY POLE
GM	GAS METER	UT	UNDERGROUND UTILITY LINE
HB	HOSE BIB	VC	VERTICAL CURVE
HDRL	HANDRAIL	VERT	VERTICAL
HORZ	HORIZONTAL	VLT	VAULT
HT	HEIGHT	W	WATER
INV	BOTTOM INSIDE OF PIPE	WL	WHITE LINE
IP	IRON PIPE	WM	WATER METER
IR	IRRIGATION	WS	WATER SERVICE
JB	JUNCTION BOX	YD	YARD DRAIN
L	LENGTH		

Know what's below. Call before you dig.

APPROVED FOR CONFORMANCE TO CITY OF AMERICAN CANYON ENGINEERING STANDARD PLANS AND SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND APPURTENANT CONDITIONS OF APPROVAL.

Erica Ahmann Smithies — 05/26/2026
ERICA AHMANN SMITHIES, P. E. C65468 — DATE
PUBLIC WORKS DIRECTOR / CITY ENGINEER
CITY OF AMERICAN CANYON

REGISTERED PROFESSIONAL ENGINEER — REBECCA DOWER — No. C 80868 — CIVIL — STATE OF CALIFORNIA

5/22/2026

REBECCA DOWER C 80868

BKF ENGINEERS
111 SANTA ROSA AVE
SUITE 100
SANTA ROSA, CA 95404
(707) 583-8500
www.bkf.com

BKF

SOUTH KELLY - HIGHWAY 29 INTERSECTION PROJECT
PROJECT NUMBER TR23-0200
CITY OF AMERICAN CANYON, CALIFORNIA

TITLE SHEET

No.	Revisions	05/22/2026
	BID SET	

Date: MAY 2026
Scale: AS SHOWN
Design: BK
Drawn: BRL
Approved: BD
Job No: 20241566

Drawing Number: **T-1**

1 OF 36

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100% CONSTRUCTION DOCUMENTS

N56°11'58"E 69.01'

SHEET TW-1 | SHEET TW-2 | SHEET TW-3 | SHEET TW-4 | SHEET TW-5 | SHEET TW-6

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00

DEVLIN ROAD

TOWER ROAD

TOWER ROAD

STATE ROUTE 29

3/4" IP
STA 0+43.40
N: 1838957.65
E: 6485187.53
ELEV 46.29±

BD LS4510
STA 1+00.00
N: 1838995.94
E: 6485244.88

BD
STA 4+36.90
N: 1838989.48
E: 6485581.72

S70°09'49"E 26.72'

3/4" IP
STA 8+37.77
N: 1837499.58
E: 6487717.84
ELEV 67.40±

10+00 9+00 8+00 7+00 6+00 5+00 4+00

S. KELLY ROAD

SHEET SK-2

BD
STA 8+52.68
N: 1837490.52
E: 6487742.98

FUTURE ROW

ROW TO BE EXTINGUISHED

FUTURE PAE

DEVLIN ROAD

N66°32'01"E 152.39'

SHEET SK-1

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00

BD
STA 2+52.35
N: 1837156.58
E: 6487245.72

BD
STA 0+99.96
N: 1837095.89
E: 6487105.93

N

100 0 100 200
scale 1" = 100' feet

REGISTERED PROFESSIONAL ENGINEER REBECCA L. DOWER No. C 80868 CIVIL STATE OF CALIFORNIA

REBECCA DOWER 5/22/2026 C 80868

BKF ENGINEERS
111 SANTA ROSA AVE
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SANTA ROSA, CA 95404
(707) 583-8500
www.bkf.com

SOUTH KELLY - HIGHWAY 29 INTERSECTION PROJECT
PROJECT NUMBER TR23-0200
CITY OF AMERICAN CANYON, CALIFORNIA

KEY FEATURES MAP

No.	Revisions	05/22/2026
	BID SET	

Date: MAY 2026
Scale: AS SHOWN
Design: BK
Drawn: BRL
Approved: BD
Job No: 20241566

Drawing Number:
KM-1
4 OF 36

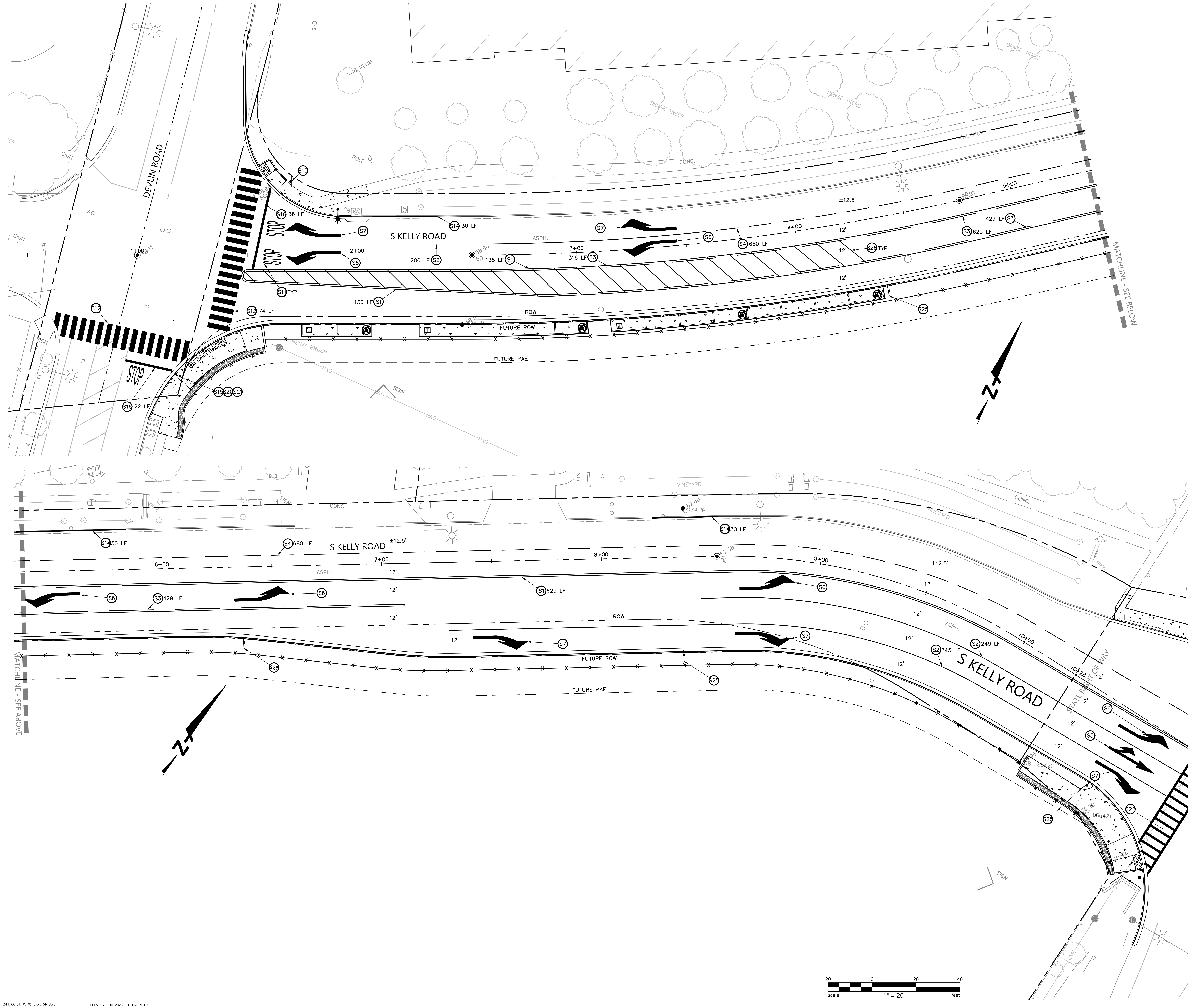
Plot: May 22, 2026 at 10:51am

241566_SKTW_03_KM.dwg

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100% CONSTRUCTION DOCUMENTS


S Kelly Rd
S Kelly Rd
S Kelly Rd
S Kelly Rd
Devlin Rd
Broadway St
Broadway St
Broadway St
Broadway St
29
29
EXISTING SOUTH KELLY ROAD



STRIPING, SIGNAGE & LIGHTING PLAN KEYNOTES:

- (S1) DOUBLE YELLOW CENTERLINE (CALTRANS STANDARD DETAIL 21).
- (S2) SOLID LANE LINE (CALTRANS STANDARD 38A).
- (S3) SOLID-DASHED YELLOW CENTERLINE (CALTRANS STANDARD DETAIL 31).
- (S4) DASHED LANELINE (CALTRANS STANDARD DETAIL 9).
- (S5) TYPE II ARROW (L) (CALTRANS STANDARD A24B).
- (S6) TYPE III ARROW (L) (CALTRANS STANDARD A24B).
- (S7) TYPE III ARROW (R) (CALTRANS STANDARD A24B).
- (S11) 'STOP' LEGEND PAVEMENT MARKING (CALTRANS STANDARD A24D).
- (S12) 12-FOOT WIDE CONTINENTAL STYLE CROSSWALK WITH 1-FOOT WIDE SOLID WHITE MARKINGS (CALTRANS STANDARD A24F).
- (S14) PAINT CURB RED.
- (S15) STOP SIGN IN ACCORDANCE WITH CURRENT CALTRANS MUTCD.
- (S16) STOP LIMIT LINE PAVEMENT MARKING 4-FT FROM CROSSWALK. (CALTRANS STANDARD A24E).
- (S20) NO LEFT TURN SIGN IN ACCORDANCE WITH CURRENT CALTRANS MUTCD.
- (S21) BIKE LANE ENDS SIGNS IN ACCORDANCE WITH CALTRANS MUTCD.
- (S22) LADDER STYLE CROSSWALK WITH 1-FOOT WIDE SOLID WHITE MARKINGS (CALTRANS STANDARD A24F).
- (S24) ONE WAY SIGN IN ACCORDANCE WITH CURRENT CALTRANS MUTCD.
- (S25) "NO PARKING, STOPPING, STANDING" SIGN IN ACCORDANCE WITH CURRENT CALTRANS MUTCD.
- (S26) YELLOW DIAGONAL CROSSHATCH MEDIAN STRIPING IN ACCORDANCE WITH SECTION 3B.25 OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION).

RELOCATE STREET NAME SIGNS AT DEVLIN ROAD AND SOUTH KELLY ROAD TO THE PROPOSED STOP SIGN.

WORK WITHIN STATE RIGHT OF WAY SHALL NOT OCCUR UNTIL CALTRANS ENCROACHMENT PERMIT IS OBTAINED. WITHIN THE STATE R/W, ALL REFRESHED STRIPING AND PAVEMENT MARKINGS, ARROWS SHALL BE "ENHANCED WET NIGHT VISIBILITY THERMOPLASTIC".

REBECCA DOWER
No. C 80868

5/22/2026
REBECCA DOWER
C 80868

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www.bkf.com

BKF

SOUTH KELLY - HIGHWAY 29 INTERSECTION PROJECT
PROJECT NUMBER TR23-0200
CITY OF AMERICAN CANYON, CALIFORNIA

SOUTH KELLY ROAD
STRIPING AND SIGNAGE PLAN

No.	Revisions	
	BID SET	05/22/2026

Date: MAY 2026
Scale: AS SHOWN
Design: BK
Drawn: BRL
Approved: BD
Job No: 20241566

Drawing Number:
SK-5
19 OF 36

Plot May 22, 2026 at 11:06am
241566_SKTW_09_SK-5_SN.dwg

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TITLE

Green Island Road Project Budget Reconciliation

RECOMMENDATION

Adopt a Resolution amending the FY2026-2027 Capital Budget and increasing the Project Budget from $20,074,000 to $22,600,000, in conjunction with the Green Island Road Reconstruction and Widening Project (TR16-0700).

CONTACT

Erica Ahmann Smithies, P.E., Public Works Director/City Engineer
Ron Ranada, P.E., Senior Civil Engineer

BACKGROUND & ANALYSIS

The Green Island Road Reconstruction and Widening Project (TR16-0700) ("Project") consists of reconstructing 1.9 miles of existing roads, including Green Island Road (from Paoli Loop to Jim Oswalt Way), Jim Oswalt Way, Mezzetta Court, Commerce Boulevard (north of North Slough), and Hanna Drive. In order to deliver the desired road improvements, the Project's scope has included a myriad of efforts that may well be characterized as sub-projects. Major efforts have included:

i. Procurement of Project funding via formation of Community Facilities District
ii. Procurement of Project funding via Economic Development Administration grants (twice)
iii. Procurement and delivery of railroad improvements, ($1.7 million)
iv. Right-of-Way Acquisition, including special legal counsel ($400k)
v. Project Design of three City Construction Contracts ($1.7 million)
vi. Procurement and delivery of overhead utility relocation and undergrounding ($2.7 million; TR16-0703)
vii. Procurement and delivery of domestic water system improvements ($800k; WA25-0100)
viii. Procurement and delivery of road improvements ($14.1 million; TR16-0700)

In all, the Project's cumulative costs presently stand at an estimated $21.4 million. This excludes the Class I Trail project (TR16-0704), budgeted at $1.3 million.

With respect to the Project's overall duration, it is one of the City's longest standing efforts, approaching the end of its eleventh year. As the Project is nearing its relative end, Public Works -

Engineering and Finance Department staff have sought to audit and reconcile the Project's various expenditures.

Based on its evaluation, staff recommends amending the FY2026-27 Capital Budget and increasing the Project Budget from $20,074,000 to $22,600,000. The amendment seeks to reconcile salaries over the life of the Project, resolve issues stemming from the complexity of the multiple sub-projects and their corresponding budgets, fund on-going right-of-way efforts, and acquire additional contingency funds for the on-going construction of the Project.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Infrastructure: "Develop and maintain infrastructure resources to support sustainable growth."

FISCAL IMPACT

The current Project Budget summary is shown below. It is recommended that the proposed increase be funded by Fund 381 (CFD Tax - Construction). Approximate fund balance available after increase will be $1.8M. The remaining fund balance will be utilized for additional road improvement projects throughout the remainder of the district under consideration for future CIP cycles. Aside from the CFD - Construction Fund, a CFD - Maintenance Fund (Fund 281) exists for ongoing maintenance expenses throughout the district and contains a fund balance of $310,000.

Fund Number (Name)	**Current Amount**	**Proposed Increase**	**New Amount**
Fund 381 (CFD Tax)	$10,192,000	$2,526,000	$12,718,000
Fund 240 (EDA Grant)	$5,748,000	$0	$5,748,000
Fund 320 (TIF)	$1,222,000	$0	$1,222,000
Fund 510 (Water Ops)	$1,555,000	$0	$1,555,000
Fund 540 (Wastewater Ops)	$72,000	$0	$72,000
Fund 210 (Measure A)	$1,185,000	$0	$1,185,000
Fund 211 (Measure U)	$100,000	$0	$100,000
Total	**$20,074,000**	**$2,526,000**	**$22,600,000**

As noted above, a portion of this funding increase is intended to provide for additional contingency on the on-going road construction Project, which has encountered a significant amount of unforeseen conditions related mainly to conflicts with existing utilities, localized poor subsurface conditions which were not identified through investigative efforts during the design phase, and mitigation of traffic impacts. The increased contingency effectively increases the Construction Budget from $15,128,149 to $15,530,000. Authorization of this amount correspondingly increases the Public Works Director's authorized limit to execute Contract Change Orders in an aggregate amount not to exceed the Construction Budget.

ENVIRONMENTAL REVIEW

Pursuant to the California Environmental Quality Act (“CEQA”), an Initial Study/Mitigated Negative Declaration (“IS/MND”), that includes a “Mitigation Monitoring and Reporting Plan (“MMRP”), was prepared for the Project and circulated for 30 days starting on August 27, 2019. A Notice of Intent ("NOI") to adopt a Mitigated Negative Declaration (“MND”) was posted at the County Clerk in accordance with the CEQA requirements on August 27, 2019.

A public hearing for consideration of the Project and its IS/MND was noticed and held on October 1, 2019, before the City Council, which at that meeting determined 1) based upon the record that the Project will not have a significant effect upon the environment if the mitigation measures listed in the MND and MMRP are implemented; 2) adopted the IS/MND for the Project; 3) adopted the MMRP for the Project, and 4) directed staff to file a Notice of Determination for the Project consistent with the CEQA Guidelines. The IS/MND evaluated the separate actions the City will take to complete the Project including the road work currently proposed.

ATTACHMENTS:

1. Resolution

RESOLUTION NO. 2026-

RESOLUTION AMENDING THE FY2026-27 CAPITAL BUDGET AND INCREASING THE PROJECT BUDGET FROM $20,074,000 TO $22,600,000, IN CONJUNCTION WITH THE GREEN ISLAND ROAD RECONSTRUCTION AND WIDENING PROJECT (TR16-0700)

WHEREAS, the Green Island Road Reconstruction and Widening Project ("Project") (TR16-0700) consists of reconstructing 1.9 miles of existing roads, including Green Island Road (from Paoli Loop to Jim Oswalt Way), Jim Oswalt Way, Mezzetta Court, Commerce Boulevard (north of North Slough), and Hanna Drive; and

WHEREAS, over the course of the Project's eleven-year lifespan, its scope and delivery method has significantly expanded and included, among other things, formation of a Community Facilities District, right-of-way acquisition, three City-issued construction contracts, and two railroad construction contracts; and

WHEREAS, through the course of the Project's development, the Project Budget has progressively increased from an initial estimate of $10 million to a current budget of $20 million, reflecting the increased complexity of the Project; and

WHEREAS, staff has sought to diligently evaluate the Project Budget, and has determined the need to increase the Project Budget in order to reconcile various expenses including staff time; and

WHEREAS, there is also a need to increase the Construction Budget due to unforeseen conditions related mainly to conflicts with existing utilities, localized poor subsurface conditions, and mitigation of traffic impacts; and

WHEREAS, the cumulative increase for the Project Budget has been estimated at $2,526,000; and

WHEREAS, sufficient funds exist in the Project's Fund 381 (CFD).

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby amends the FY2026-27 Capital Budget as follows; and

Name	**Budget Increase**
CFD (Fund 381)	$2,526,000
CIP Capital Outlay (Fund 350)	$2,526,000

NOW, THEREFORE, BE IT FURTHER RESOLVED that the City Council of the City of American Canyon, hereby amends the Project Budget for the Green Island Road Reconstruction and Widening Project, increasing it as follows; and

Source	**Current Amount**	**New Amount**
Fund 381 (CFD Tax)	$10,192,000	$12,718,000
Fund 240 (EDA Grant)	$5,748,000	$5,748,000
Fund 320 (TIF)	$1,222,000	$1,222,000
Fund 211, Measure U	$100,000	$100,000
Fund 510, Water Ops	$1,555,000	$1,555,000
Fund 540, Wastewater Operations	$72,000	$72,000
Fund 210, Measure A	$1,185,000	$1,185,000
Total	**$20,074,000**	**$22,600,000**

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 18th day of August, 2026 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

_____
Taresa Geilfuss, CMC, City Clerk

APPROVE AS TO FORM:

_____
Matt Summers, City Attorney

TITLE

Quarterly Investment Report for City and Fire District for Fiscal Year 2025-26 Quarter 4

RECOMMENDATION

Receive and file the City and Fire District's Treasurer's Report for the quarter ended June 30, 2026.

CONTACT

Jemelyn Cruz, Finance Director

BACKGROUND & ANALYSIS

The City's Investment Policy requires the Treasurer to submit a quarterly investment report to the City Council. The report (Attachment 1) for the quarter ended June 30, 2026, includes investment transactions for both the City and Fire District. The report shows the City's cash and investment book balance, including debt reserves and unspent proceeds, was $73,727,203. The Fire District's book balance was $5,866,502.

- The City's diversified portfolio includes $33.9 million invested in the California State Treasurer's Office Local Agency Investment Fund (LAIF)$0.4 million invested in the California Asset Management Program and$31.5 million managed by Chandler Asset Management. The funds managed by Chandler are invested in U.S. Treasury Notes, Federal Agency Securities, Asset Backed Securities, U.S. Corporate Notes, Supranational Securities, and FDIC insured Corporate Notes.
- The Fire District maintains cash and investment accounts separately from the city. The book value of the district's total portfolio is $5.9 million. All cash not needed to meet the current operational requirements of the Fire District is invested with Local Agency Investment Fund (LAIF).

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Organizational Effectiveness: "Deliver exemplary government services."

FISCAL IMPACT

The recommended action will have no impact on the city's budget.

ENVIRONMENTAL REVIEW

Not Applicable

COMMUNICATION

Level 0: No Further Public Communication Needed

ATTACHMENTS:

1. Investment Report Jun 30 2026
2. Chandler Investment Holdings June 30 2026.

Investment Report
For the Quarter Ended
June 30, 2026

City of American Canyon

Operating and Capital Funds	Book Value	Market Value	Book Yield [1]	% of Portfolio
Cash - Registers	$ 2,000	$ 2,000		0.00%
Cash - Westamerica Bank	1,533,230	1,533,230	0.20%	2.28%
Local Agency Investment Fund	33,882,842	33,844,635	3.92%	50.33%
California Asset Management Program	424,663	424,663	3.77%	0.63%
Asset Backed Securities	2,933,023	2,927,748	4.36%	4.36%
Federal Agency Securities	1,611,473	1,620,175	4.18%	2.39%
Collaterial Mortgage Obligations	3,042,797	3,009,386	4.44%	4.52%
Corporate Notes	8,012,332	8,002,991	4.58%	11.90%
Money Market Fund	200,265	200,265	3.27%	0.30%
Cash	501	501		0.00%
Supranational	933,891	936,776	4.19%	1.39%
U.S. Treasury Notes	14,741,939	14,671,593	4.16%	21.90%
TOTAL OPERATING CASH	67,318,955	67,173,964		100.00%
Debt Reserves and Proceeds				
Debt Service Reserves				
602 - American Canyon Road	726,225	726,225		
603 - CFD	4,980,060	4,980,060		
Capital Reserve				
601 - 2004 Reassessment	366,631	366,631		
360 - AmCyn Road East	335,331	335,331		
TOTAL DEBT & CAPITAL RESERVES	6,408,248	6,408,248		
TOTAL CASH AND INVESTMENTS - CITY	$ 73,727,203	$ 73,582,211		

(1) The weighted average yield as operating and capital funds for the month ended June 30, 2026 was 4.02%.

Investment Report
For the Quarter Ended
June 30, 2026

American Canyon Fire Protection District

Description	Book Value	Market Value	Book Yield [2]	% of Portfolio
Cash - Westamerica Bank	$ 459,546	459,546	0.20%	7.83%
Local Agency Investment Fund	5,406,957	5,400,860	3.92%	92.17%
TOTAL CASH AND INVESTMENTS - FIRE DISTRICT	$ 5,866,502	$ 5,860,405		100.00%

(2) The weighted average yield for the month ended June 30, 2026 was 3.63%.

The investments, as shown above, are in conformance with the Investment Policy or bond agreements
There are sufficient funds to meet the City's budgeted financial obligations for the next six months.

Submitted,

Jemelyn Cruz
Finance Director/Treasurer

CHANDLER ASSET MANAGEMENT

MONTHLY ACCOUNT STATEMENT

City of American Canyon | Account #10130 | As of June 30, 2026

CHANDLER ASSET MANAGEMENT | chandlerasset.com

Chandler Team:

For questions about your account, please call (800) 317-4747,
or contact clientservice@chandlerasset.com

Custodian:

US Bank

Information contained herein is confidential. We urge you to compare this statement to the one you receive from your qualified custodian. Please see Important Disclosures at the end of the statement.

PORTFOLIO SUMMARY

City of American Canyon | Account #10130 | As of June 30, 2026

Portfolio Characteristics

Average Modified Duration	2.53
Average Coupon	3.85%
Average Purchase YTM	4.16%
Average Market YTM	4.31%
Average Credit Quality*	AA
Average Final Maturity	2.96
Average Life	2.76

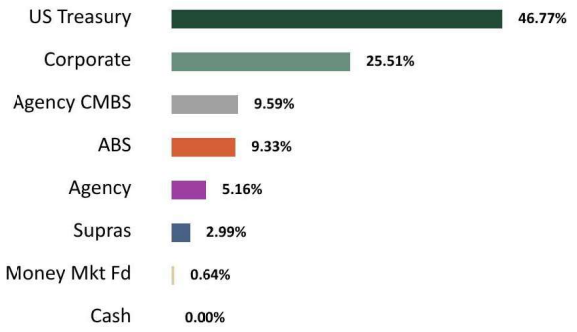
Account Summary

	End Values as of 05/31/2026	End Values as of 06/30/2026
Market Value	31,339,174.10	31,369,435.63
Accrued Interest	261,445.09	257,656.43
Total Market Value	**31,600,619.19**	**31,627,092.07**
Income Earned	74,454.90	141,733.85
Cont/WD	0.00	0.00
Par	31,635,801.08	31,788,597.49
Book Value	31,364,702.07	31,476,220.02
Cost Value	31,258,118.85	31,366,161.99

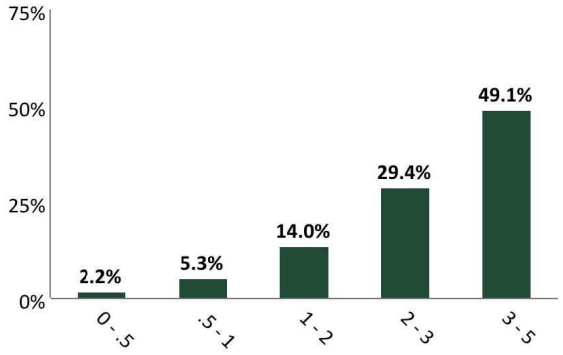
Top Issuers

United States	46.77%
Federal Home Loan Mortgage Corp	9.59%
Federal Home Loan Banks	2.66%
Farm Credit System	2.51%
International Bank for Recon and Dev	1.61%
Chase Issuance Trust	1.58%
JPMorgan Chase & Co.	1.27%
American Express Company	1.21%

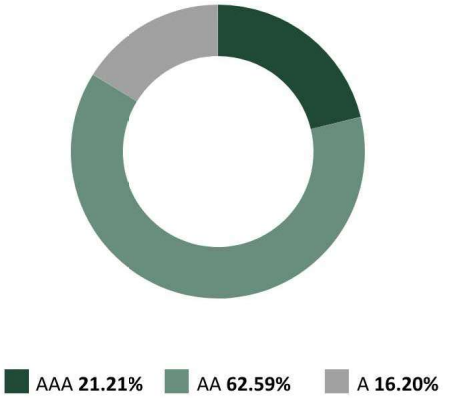
Sector Allocation



Maturity Distribution



Credit Quality*



Performance Review

Total Rate of Return**	1M	3M	YTD	1YR	2YRS	3YRS	5YRS	10YRS	Since Inception (07/01/10)
City of American Canyon	0.08%	0.35%	0.60%	3.04%	4.64%	4.63%	1.90%	1.97%	1.85%
Benchmark Return	0.06%	0.24%	0.43%	2.71%	4.37%	4.30%	1.52%	1.64%	1.60%

*The average credit quality is a weighted average calculation of the highest of S&P, Moody's and Fitch.
**Periods over 1 year are annualized.
Benchmark: ICE BofA 1-5 Year Unsubordinated US Treasury & Agency Index

STATEMENT OF COMPLIANCE

City of American Canyon | Account #10130 | As of June 30, 2026

Rules Name	Limit	Actual	Compliance Status	Notes
AGENCY MORTGAGE SECURITIES				
Max % (MV)	100.0	9.5	Compliant	
Max % Issuer (MV)	30.0	9.5	Compliant	
Max Maturity (Years)	5.0	4.6	Compliant	
ASSET-BACKED SECURITIES (ABS)				
Max % (MV)	20.0	9.3	Compliant	
Max % Issuer (MV)	5.0	1.6	Compliant	
Max Maturity (Years)	5	4	Compliant	
Min Rating (AA- by 1)	0.0	0.0	Compliant	
BANKERS' ACCEPTANCES				
Max % (MV)	40.0	0.0	Compliant	
Max % Issuer (MV)	5.0	0.0	Compliant	
Max Maturity (Days)	180	0.0	Compliant	
Min Rating (A-1 by 1 or A- by 1)	0.0	0.0	Compliant	
CERTIFICATE OF DEPOSIT PLACEMENT SERVICE (CDARS)				
Max % (MV)	30.0	0.0	Compliant	
Max Maturity (Years)	5.0	0.0	Compliant	
COLLATERALIZED BANK DEPOSITS				
Max % Issuer (MV)	5.0	0.0	Compliant	
COLLATERALIZED TIME DEPOSITS (NON-NEGOTIABLE CD/TD)				
Max % (MV)	20.0	0.0	Compliant	
Max % Issuer (MV)	5.0	0.0	Compliant	
Max Maturity (Years)	5.0	0.0	Compliant	
COMMERCIAL PAPER				
Max % (MV)	25.0	0.0	Compliant	
Max % Issuer (MV)	5.0	0.0	Compliant	
Max Maturity (Days)	270	0.0	Compliant	
Min Rating (A-1 by 1 or A- by 1)	0.0	0.0	Compliant	
CORPORATE MEDIUM TERM NOTES				
Max % (MV)	30.0	25.6	Compliant	
Max % Issuer (MV)	5.0	1.3	Compliant	
Max Maturity (Years)	5	4	Compliant	
Min Rating (A- by 1)	0.0	0.0	Compliant	

STATEMENT OF COMPLIANCE

City of American Canyon | Account #10130 | As of June 30, 2026

Rules Name	Limit	Actual	Compliance Status	Notes
FDIC INSURED TIME DEPOSITS (NON-NEGOTIABLE CD/ TD)				
Max % (MV)	20.0	0.0	Compliant	
Max Maturity (Years)	5	0.0	Compliant	
FEDERAL AGENCIES				
Max % (MV)	100.0	5.2	Compliant	
Max % Issuer (MV)	30.0	2.7	Compliant	
Max Callables (MV)	20.0	0.0	Compliant	
Max Maturity (Years)	5	2	Compliant	
LOCAL AGENCY INVESTMENT FUND (LAIF)				
Max Concentration (MV)	75.0	0.0	Compliant	
MONEY MARKET MUTUAL FUNDS				
Max % (MV)	20.0	0.6	Compliant	
Max % Issuer (MV)	20.0	0.6	Compliant	
Min Rating (AAA by 2)	0.0	0.0	Compliant	
MORTGAGE-BACKED SECURITIES (NON-AGENCY)				
Max % (MV)	20.0	0.0	Compliant	
Max % Issuer (MV)	5.0	0.0	Compliant	
Max Maturity (Years)	5.0	0.0	Compliant	
Min Rating (AA- by 1)	0.0	0.0	Compliant	
MUNICIPAL SECURITIES (CA, LOCAL AGENCY)				
Max % (MV)	30.0	0.0	Compliant	
Max % Issuer (MV)	5.0	0.0	Compliant	
Max Maturity (Years)	5	0.0	Compliant	
Min Rating (A- by 1)	0.0	0.0	Compliant	
MUNICIPAL SECURITIES (CA, OTHER STATES)				
Max % (MV)	30.0	0.0	Compliant	
Max % Issuer (MV)	5.0	0.0	Compliant	
Max Maturity (Years)	5	0.0	Compliant	
Min Rating (A- by 1)	0.0	0.0	Compliant	
MUTUAL FUNDS				
Max % (MV)	20.0	0.0	Compliant	
Max % Issuer (MV)	10.0	0.0	Compliant	
Min Rating (AAA by 2)	0.0	0.0	Compliant	

STATEMENT OF COMPLIANCE

City of American Canyon | Account #10130 | As of June 30, 2026

Rules Name	Limit	Actual	Compliance Status	Notes
NEGOTIABLE CERTIFICATES OF DEPOSIT (NCD)				
Max % (MV)	30.0	0.0	Compliant	
Max % Issuer (MV)	5.0	0.0	Compliant	
Max Maturity (Years)	5	0.0	Compliant	
Min Rating (A-1 by 1 or A- by 1 if > FDIC Limit)	0.0	0.0	Compliant	
REPURCHASE AGREEMENTS				
Max Maturity (Years)	1.0	0.0	Compliant	
SUPRANATIONAL OBLIGATIONS				
Max % (MV)	30.0	3.0	Compliant	
Max % Issuer (MV)	10.0	1.6	Compliant	
Max Maturity (Years)	5	3	Compliant	
Min Rating (AA- by 1)	0.0	0.0	Compliant	
U.S. TREASURIES				
Max % (MV)	100.0	46.8	Compliant	
Max Maturity (Years)	5	4	Compliant	

RECONCILIATION SUMMARY

City of American Canyon | Account #10130 | As of June 30, 2026

Maturities / Calls

Month to Date	**0.00**
Fiscal Year to Date	**(1,775,000.00)**

Principal Paydowns

Month to Date	**(20,946.47)**
Fiscal Year to Date	**(314,109.29)**

Purchases

Month to Date	**2,008,131.32**
Fiscal Year to Date	**15,122,436.24**

Sales

Month to Date	**(1,848,975.48)**
Fiscal Year to Date	**(11,893,342.98)**

Interest Received

Month to Date	**126,860.14**
Fiscal Year to Date	**1,125,537.40**

Purchased / Sold Interest

Month to Date	**11,453.40**
Fiscal Year to Date	**15,696.61**

Accrual Activity Summary

	Month to Date	Fiscal Year to Date (07/01/2025)
Beginning Book Value	31,364,702.07	30,291,031.28
Maturities/Calls	0.00	(1,775,000.00)
Principal Paydowns	(20,946.47)	(314,109.29)
Purchases	2,008,131.32	15,122,436.24
Sales	(1,848,975.48)	(11,893,342.98)
Change in Cash, Payables, Receivables	(34,114.13)	(290.08)
Amortization/Accretion	7,208.96	73,554.56
Realized Gain (Loss)	213.75	(28,059.72)
Ending Book Value	31,476,220.02	31,476,220.02

Fair Market Activity Summary

	Month to Date	Fiscal Year to Date (07/01/2025)
Beginning Market Value	31,339,174.10	30,447,817.41
Maturities/Calls	0.00	(1,775,000.00)
Principal Paydowns	(20,946.47)	(314,109.29)
Purchases	2,008,131.32	15,122,436.24
Sales	(1,848,975.48)	(11,893,342.98)
Change in Cash, Payables, Receivables	(34,114.13)	(290.08)
Amortization/Accretion	7,208.96	73,554.56
Change in Net Unrealized Gain (Loss)	(81,256.42)	(263,570.51)
Realized Gain (Loss)	213.75	(28,059.72)
Ending Market Value	31,369,435.63	31,369,435.63

Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P/ Fitch	Maturity Duration
ABS									
58768PAC8	MBART 2022-1 A3 5.21 08/16/2027	1,006.95	11/15/2022 5.27%	1,006.75 1,006.90	100.05 3.85%	1,007.49 2.33	0.00% 0.59	Aaa/AAA NA	1.13 0.04
05592XAD2	BMWOT 2023-A A3 5.47 02/25/2028	7,696.77	07/11/2023 5.47%	7,695.40 7,696.28	100.33 4.10%	7,722.04 7.02	0.02% 25.76	NA/AAA AAA	1.66 0.23
161571HT4	CHAIT 2023-1 A 5.16 09/15/2028	255,000.00	09/07/2023 5.23%	254,929.31 254,968.77	100.25 3.96%	255,642.35 584.80	0.81% 673.57	NA/AAA AAA	2.21 0.20
05594HAD5	BMWLT 2025-2 A3 3.97 09/25/2028	160,000.00	10/08/2025 4.32%	159,999.55 159,999.66	99.67 4.34%	159,479.68 105.87	0.51% (519.98)	NA/AAA AAA	2.24 0.97
36275AAD1	GMALT 2026-2 A3 4.3 03/20/2029	105,000.00	05/05/2026 4.40%	104,988.64 104,989.16	99.86 4.43%	104,848.38 112.88	0.33% (140.78)	NA/AAA AAA	2.72 1.57
43813YAC6	HAROT 2024-3 A3 4.57 03/21/2029	116,482.62	08/09/2024 4.66%	116,464.33 116,471.75	100.20 4.31%	116,713.49 147.87	0.37% 241.74	Aaa/NA AAA	2.72 0.64
34535VAD6	FORDO 2024-D A3 4.61 08/15/2029	145,000.00	11/19/2024 4.66%	144,995.35 144,996.93	100.30 4.32%	145,436.74 297.09	0.46% 439.81	Aaa/NA AAA	3.13 0.90
47800DAD6	JDOT 2025 A3 4.23 09/17/2029	145,000.00	03/04/2025 5.09%	144,990.88 144,993.52	99.88 4.35%	144,820.35 272.60	0.46% (173.17)	Aaa/NA AAA	3.22 1.47
44935CAD3	HART 2025-A A3 4.32 10/15/2029	180,000.00	03/04/2025 4.84%	179,973.45 179,980.98	100.05 4.31%	180,082.80 345.60	0.57% 101.82	NA/AAA AAA	3.29 0.95
58770YAD3	MBALT 2026-A A3 3.93 01/15/2030	85,000.00	01/13/2026 3.97%	84,983.15 84,985.01	99.21 4.40%	84,331.31 148.47	0.27% (653.71)	Aaa/NA AAA	3.54 1.78
34532BAG6	FORDO 2025-B A3 3.91 04/15/2030	150,000.00	09/23/2025 4.27%	149,983.82 149,986.53	99.24 4.42%	148,859.85 260.67	0.47% (1,126.68)	Aaa/NA AAA	3.79 1.60
89231GAD0	TAOT 2025-D A3 3.84 06/17/2030	190,000.00	10/15/2025 4.27%	189,978.15 189,981.38	99.25 4.37%	188,574.05 324.27	0.60% (1,407.33)	NA/AAA AAA	3.96 1.52
47787DAD3	JDOT 2026 A3 3.87 08/15/2030	105,000.00	03/10/2026 4.49%	104,981.39 104,982.60	98.68 4.46%	103,609.38 180.60	0.33% (1,373.22)	Aaa/NA AAA	4.13 2.38
58769MAD2	MBART 261 A3 4.36 10/15/2030	225,000.00	05/12/2026 4.60%	224,951.00 224,952.28	99.81 4.49%	224,577.23 436.00	0.72% (375.05)	NA/AAA AAA	4.29 2.07
43814YAD3	HAROT 2026-2 A3 4.3 11/15/2030	235,000.00	05/05/2026 3.02%	234,993.21 234,993.41	99.74 4.46%	234,399.11 449.11	0.75% (594.31)	Aaa/AAA NA	4.38 2.14
89240QAD7	TAOT 2026-B A3 4.13 12/16/2030	115,000.00	04/14/2026 4.27%	114,975.75 114,976.76	99.42 4.46%	114,329.32 211.09	0.36% (647.44)	Aaa/AAA NA	4.46 1.97
44935KAD5	HART 26B A3 4.81 02/18/2031	175,000.00	06/09/2026 4.86%	174,978.88 174,979.05	100.24 4.44%	175,420.70 327.35	0.56% 441.65	NA/AAA AAA	4.64 2.20

Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P/ Fitch	Maturity Duration
92970QAK1	WFCIT 2026-1 A 4.08 04/16/2029	300,000.00	06/17/2026 4.36%	298,113.28 298,137.02	99.25 4.41%	297,738.00 544.00	0.95% (399.02)	Aaa/NA AAA	2.79 2.58
161571JA3	CHAIT 2026-1 A 4.4 05/15/2029	240,000.00	05/21/2026 4.45%	239,943.22 239,945.00	100.06 4.42%	240,155.52 968.00	0.77% 210.52	NA/AAA AAA	2.87 2.63
Total ABS		**2,935,186.33**	**4.46%**	**2,932,925.51** **2,933,023.01**	**99.75** **4.36%**	**2,927,747.77** **5,725.59**	**9.33%** **(5,275.24)**		**3.39** **1.66**
AGENCY									
3130AWMN7	FEDERAL HOME LOAN BANKS 4.375 06/09/2028	300,000.00	07/26/2023 4.27%	301,350.00 300,538.03	100.40 4.16%	301,200.30 802.08	0.96% 662.27	Aa1/AA+ AA+	1.94 1.84
3130AWTR1	FEDERAL HOME LOAN BANKS 4.375 09/08/2028	280,000.00	09/12/2023 4.51%	278,350.80 279,275.87	100.40 4.18%	281,108.52 3,845.14	0.90% 1,832.65	Aa1/AA+ AA+	2.19 2.04
3133EPWK7	FEDERAL FARM CREDIT BANKS FUNDING CORP 4.5 09/22/2028	280,000.00	09/22/2023 4.66%	278,023.20 279,117.81	100.66 4.18%	281,856.12 3,465.00	0.90% 2,738.31	Aa1/AA+ AA+	2.23 2.07
3133EPN50	FEDERAL FARM CREDIT BANKS FUNDING CORP 4.25 12/15/2028	250,000.00	12/28/2023 3.88%	254,180.00 252,070.40	100.18 4.17%	250,448.75 472.22	0.80% (1,621.65)	Aa1/AA+ AA+	2.46 2.31
3130AVBD3	FEDERAL HOME LOAN BANKS 4.5 03/09/2029	250,000.00	04/22/2024 4.71%	247,680.00 248,720.81	100.70 4.22%	251,749.25 3,500.00	0.80% 3,028.44	Aa1/AA+ AA+	2.69 2.48
3133ERDH1	FEDERAL FARM CREDIT BANKS FUNDING CORP 4.75 04/30/2029	250,000.00	05/21/2024 4.47%	253,052.50 251,749.60	101.52 4.17%	253,812.25 2,012.15	0.81% 2,062.65	Aa1/AA+ AA+	2.83 2.61
Total Agency		**1,610,000.00**	**4.42%**	**1,612,636.50** **1,611,472.52**	**100.63** **4.18%**	**1,620,175.19** **14,096.60**	**5.16%** **8,702.67**		**2.37** **2.21**
AGENCY CMBS									
3137FG6X8	FHMS K-077 A2 3.85 05/25/2028	460,000.00	05/24/2023 4.65%	451,554.69 456,852.97	98.91 4.37%	454,980.94 1,475.83	1.45% (1,872.03)	Aa1/AA+ AAA	1.90 1.72
3137FKUP9	FHMS K-087 A2 3.771 12/25/2028	337,644.85	12/15/2025 3.78%	336,945.82 337,072.15	98.38 4.42%	332,167.91 1,061.05	1.06% (4,904.24)	Aa1/AAA AA+	2.49 2.22
3137FQ3Z4	FHMS K-101 A2 2.524 10/25/2029	500,000.00	03/13/2025 4.41%	461,289.06 472,262.61	94.18 4.44%	470,904.00 1,051.67	1.50% (1,358.61)	Aa1/AA+ AA+	3.32 3.05
3137FRUT6	FHMS K-106 A2 2.069 01/25/2030	350,000.00	07/14/2025 4.25%	319,005.86 325,646.10	92.25 4.44%	322,867.30 603.46	1.03% (2,778.80)	Aa1/AA+ AAA	3.57 3.33
3137FX3Q9	FHMS K-117 A2 1.406 08/25/2030	400,000.00	06/03/2026 4.46%	354,328.13 355,021.50	88.69 4.46%	354,771.60 468.67	1.13% (249.90)	Aa1/AA+ AAA	4.15 3.88
3137F83Q4	FHMS K-121 A2 1.547 10/25/2030	400,000.00	01/07/2026 3.97%	358,109.37 362,242.52	88.68 4.46%	354,722.40 515.67	1.13% (7,520.12)	Aa1/AA+ AAA	4.32 4.06

Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P/ Fitch	Maturity Duration
3137FXZ35	FHMS K-127 A2 2.108 01/25/2031	400,000.00	02/03/2026 4.11%	364,375.00 367,260.82	90.37 4.46%	361,491.20 702.67	1.15% (5,769.62)	Aa1/AA+ AAA	4.57 4.22
3137F9Z79	FHMS K-125 A2 1.846 01/25/2031	400,000.00	02/19/2026 3.90%	363,765.62 366,438.31	89.37 4.46%	357,480.40 615.33	1.14% (8,957.91)	Aa1/AA+ AAA	4.57 4.22
				3,009,373.55	**92.83**	**3,009,385.75**	**9.59%**		**3.56**
Total Agency CMBS		**3,247,644.85**	**4.22%**	**3,042,796.98**	**4.44%**	**6,494.34**	**(33,411.23)**		**3.28**
CASH									
CCYUSD	Receivable	501.30	--	501.30 501.30	1.00	501.30 0.00	0.00% 0.00	Aaa/AAA AAA	0.00 0.00
				501.30	**1.00**	**501.30**	**0.00%**		**0.00**
Total Cash		**501.30**		**501.30**		**0.00**	**0.00**		**0.00**
CORPORATE									
87612EBM7	TARGET CORP 1.95 01/15/2027	135,000.00	01/19/2022 1.99%	134,770.50 134,974.99	98.83 4.16%	133,422.93 1,213.88	0.43% (1,552.06)	A2/A NA	0.54 0.52
808513BY0	CHARLES SCHWAB CORP 2.45 03/03/2027	75,000.00	03/01/2022 2.47%	74,919.00 74,989.13	98.80 4.27%	74,103.08 602.29	0.24% (886.06)	A2/A- A	0.67 0.65
084664CZ2	BERKSHIRE HATHAWAY FINANCE CORP 2.3 03/15/2027	220,000.00	03/07/2022 2.30%	219,958.20 219,994.12	98.68 4.21%	217,097.54 1,489.89	0.69% (2,896.58)	Aa2/AA A+	0.71 0.69
023135CF1	AMAZON.COM INC 3.3 04/13/2027	150,000.00	04/25/2022 3.34%	149,740.50 149,959.04	99.31 4.19%	148,972.35 1,072.50	0.47% (986.69)	A1/AA AA-	0.79 0.76
14913R3A3	CATERPILLAR FINANCIAL SERVICES CORP 3.6 08/12/2027	180,000.00	08/22/2022 3.81%	178,277.40 179,613.51	99.32 4.23%	178,769.34 2,502.00	0.57% (844.17)	A1/A A+	1.12 1.06
931142EX7	WALMART INC 3.95 09/09/2027	140,000.00	-- 3.98%	139,833.40 139,960.54	99.74 4.17%	139,635.58 1,720.44	0.45% (324.96)	Aa2/AA AA	1.19 1.14
79466LAF1	SALESFORCE INC 3.7 04/11/2028	250,000.00	08/23/2023 4.84%	238,280.00 245,494.97	98.69 4.47%	246,736.75 2,055.56	0.79% 1,241.78	A2/A+ NA	1.78 1.69
74456QBU9	PUBLIC SERVICE ELECTRIC AND GAS CO 3.7 05/01/2028	250,000.00	09/06/2023 5.10%	235,697.50 244,353.17	98.80 4.39%	246,989.25 1,541.67	0.79% 2,636.08	A1/A NA	1.84 1.74
037833ET3	APPLE INC 4.0 05/10/2028	50,000.00	05/08/2023 4.04%	49,903.50 49,964.14	99.60 4.22%	49,799.30 283.33	0.16% (164.84)	Aaa/AA+ NA	1.86 1.76
02665WEM9	AMERICAN HONDA FINANCE CORP 5.125 07/07/2028	200,000.00	08/17/2023 5.33%	198,238.00 199,271.27	100.88 4.66%	201,760.80 4,954.17	0.64% 2,489.53	A3/BBB+ A-	2.02 1.85
46647PDG8	JPMORGAN CHASE & CO 4.851 07/25/2028	200,000.00	08/04/2023 5.68%	197,018.00 199,198.34	100.29 5.07%	200,580.80 4,204.20	0.64% 1,382.46	A1/A AA-	2.07 1.01

Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P/ Fitch	Maturity Duration
69371RS80	PACCAR FINANCIAL CORP 4.6 01/31/2029	305,000.00	01/24/2024 4.64%	304,502.85 304,742.85	100.64 4.33%	306,947.73 5,884.81	0.98% 2,204.88	A1/A+ NA	2.59 2.37
17275RBR2	CISCO SYSTEMS INC 4.85 02/26/2029	275,000.00	03/14/2024 4.74%	276,287.00 275,681.57	101.06 4.42%	277,920.23 4,631.08	0.89% 2,238.66	A1/AA- NA	2.66 2.36
61747YFD2	MORGAN STANLEY 5.164 04/20/2029	300,000.00	05/30/2024 5.44%	297,084.00 298,646.73	100.79 4.88%	302,364.60 3,055.37	0.96% 3,717.87	A1/A- A+	2.80 1.69
91159HJM3	US BANCORP 5.775 06/12/2029	300,000.00	06/20/2024 5.26%	305,430.00 302,662.64	102.09 4.97%	306,257.70 914.38	0.98% 3,595.06	A3/A A+	2.95 1.82
437076DC3	HOME DEPOT INC 4.75 06/25/2029	105,000.00	06/17/2024 4.90%	104,322.75 104,595.73	100.99 4.39%	106,039.19 83.13	0.34% 1,443.46	A2/A A	2.99 2.68
756109CB8	REALTY INCOME CORP 4.0 07/15/2029	300,000.00	09/27/2024 4.32%	295,881.00 297,385.88	98.17 4.65%	294,498.90 5,533.33	0.94% (2,886.98)	A3/A- NA	3.04 2.77
171239AL0	CHUBB INA HOLDINGS LLC 4.65 08/15/2029	300,000.00	09/19/2024 4.06%	307,731.00 304,878.57	100.49 4.48%	301,477.20 5,270.00	0.96% (3,401.37)	A2/A A	3.13 2.76
46647PAX4	JPMORGAN CHASE & CO 4.452 12/05/2029	200,000.00	12/09/2024 4.72%	198,072.00 198,824.13	99.43 4.88%	198,866.40 643.07	0.63% 42.27	A1/A AA-	3.43 2.27
26442CBA1	DUKE ENERGY CAROLINAS LLC 2.45 02/01/2030	350,000.00	02/26/2025 4.69%	315,857.50 325,119.06	93.03 4.58%	325,595.90 3,572.92	1.04% 476.84	Aa3/A NA	3.59 3.33
63743HFX5	NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORP 4.95 02/07/2030	320,000.00	-- 4.92%	320,421.70 320,310.28	101.05 4.63%	323,372.16 6,336.00	1.03% 3,061.88	A2/NA A	3.61 3.14
857477CW1	STATE STREET CORP 4.729 02/28/2030	350,000.00	02/28/2025 4.64%	351,074.50 350,782.38	100.70 4.52%	352,440.55 5,655.10	1.12% 1,658.17	Aa3/A AA-	3.67 3.21
571748CA8	MARSH & MCLENNAN COMPANIES INC 4.65 03/15/2030	350,000.00	03/14/2025 4.76%	348,351.50 348,777.18	99.90 4.68%	349,646.15 4,792.08	1.11% 868.97	A3/A- A-	3.71 3.32
009158BC9	AIR PRODUCTS AND CHEMICALS INC 2.05 05/15/2030	350,000.00	11/13/2025 4.14%	320,295.50 324,435.69	91.08 4.59%	318,790.15 916.81	1.02% (5,645.54)	A3/A NA	3.87 3.64
06051GHV4	BANK OF AMERICA CORP 3.194 07/23/2030	250,000.00	08/25/2025 4.61%	239,595.00 241,389.17	95.58 4.87%	238,937.50 3,504.53	0.76% (2,451.67)	A1/A- AA-	4.06 2.83
24422EYF0	JOHN DEERE CAPITAL CORP 4.375 10/15/2030	350,000.00	11/04/2025 4.22%	352,422.00 352,102.64	99.40 4.53%	347,885.65 3,232.64	1.11% (4,216.99)	A1/A A+	4.29 3.83
74340XCQ2	PROLOGIS LP 4.75 01/15/2031	350,000.00	05/05/2026 4.50%	353,636.50 353,515.57	100.51 4.62%	351,801.10 7,665.97	1.12% (1,714.47)	A2/A NA	4.54 3.89
025816DY2	AMERICAN EXPRESS CO 5.085 01/30/2031	375,000.00	04/21/2026 4.43%	383,460.00 383,030.56	101.20 4.71%	379,495.88 7,998.28	1.21% (3,534.68)	A2/A- A	4.59 3.18

Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P/ Fitch	Maturity Duration
002824BS8	ABBOTT LABORATORIES 4.0 03/15/2031	350,000.00	04/29/2026 4.42%	343,539.00 343,764.05	97.46 4.61%	341,093.20 4,355.56	1.09% (2,670.85)	Aa3/A+ NA	4.71 4.18
89236TQB4	TOYOTA MOTOR CREDIT CORP 4.55 05/14/2031	235,000.00	05/11/2026 4.60%	234,522.95 234,535.49	99.17 4.74%	233,053.26 1,395.97	0.74% (1,482.23)	A1/A+ A+	4.87 4.29
14913V2D9	CATERPILLAR FINANCIAL SERVICES CORP 4.5 05/15/2031	80,000.00	05/11/2026 4.53%	79,890.40 79,893.22	99.53 4.61%	79,621.52 460.00	0.25% (271.70)	A1/A A+	4.87 4.30
57636QBL7	MASTERCARD INC 4.6 06/08/2031	270,000.00	06/04/2026 4.62%	269,784.00 269,786.72	99.85 4.63%	269,585.01 793.50	0.86% (201.71)	Aa3/A+ NA	4.94 4.36
67066GAR5	NVIDIA CORP 4.5 06/15/2031	160,000.00	06/15/2026 4.54%	159,696.00 159,698.17	99.65 4.58%	159,433.60 260.00	0.51% (264.57)	Aa1/AA NA	4.96 4.39
Total Corporate		**8,075,000.00**	**4.50%**	**7,978,493.15** **8,012,331.50**	**99.17** **4.58%**	**8,002,991.28** **98,594.41**	**25.51%** **(9,340.22)**		**3.24** **2.73**
MONEY MARKET FUND									
31846V203	FIRST AMER:GVT OBLG Y	200,265.01	-- 3.27%	200,265.01 200,265.01	1.00 3.27%	200,265.01 0.00	0.64% 0.00	Aaa/ AAAm AAA	0.00 0.00
Total Money Market Fund		**200,265.01**	**3.27%**	**200,265.01** **200,265.01**	**1.00** **3.27%**	**200,265.01** **0.00**	**0.64%** **0.00**		**0.00** **0.00**
SUPRANATIONAL									
459058KT9	INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPM 3.5 07/12/2028	210,000.00	11/28/2023 4.55%	200,928.00 206,007.46	98.71 4.17%	207,287.22 3,450.42	0.66% 1,279.76	Aaa/AAA NA	2.03 1.91
45950KDD9	INTERNATIONAL FINANCE CORP 4.5 07/13/2028	130,000.00	07/06/2023 4.53%	129,855.70 129,941.32	100.63 4.17%	130,817.70 2,730.00	0.42% 876.38	Aaa/AAA NA	2.04 1.89
4581X0EN4	INTER-AMERICAN DEVELOPMENT BANK 4.125 02/15/2029	300,000.00	02/15/2024 4.31%	297,534.00 298,700.68	99.86 4.18%	299,574.90 4,675.00	0.95% 874.22	Aaa/AAA NA	2.63 2.42
459058LR2	INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPM 4.125 03/20/2030	300,000.00	03/14/2025 4.20%	298,980.00 299,241.42	99.70 4.21%	299,096.40 3,471.88	0.95% (145.02)	Aaa/AAA NA	3.72 3.38
Total Supranational		**940,000.00**	**4.36%**	**927,297.70** **933,890.88**	**99.66** **4.19%**	**936,776.22** **14,327.29**	**2.99%** **2,885.34**		**2.76** **2.54**

Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P/ Fitch	Maturity Duration
US TREASURY									
91282CDG3	UNITED STATES TREASURY 1.125 10/31/2026	500,000.00	-- 1.28%	496,269.40 499,747.01	99.08 3.92%	495,415.00 947.69	1.58% (4,332.01)	Aa1/AA+ AA+	0.34 0.33
91282CEN7	UNITED STATES TREASURY 2.75 04/30/2027	400,000.00	06/13/2022 3.43%	387,734.38 397,913.26	98.93 4.07%	395,725.20 1,853.26	1.26% (2,188.06)	Aa1/AA+ AA+	0.83 0.81
91282CEW7	UNITED STATES TREASURY 3.25 06/30/2027	700,000.00	-- 2.97%	708,996.10 701,818.31	99.16 4.12%	694,126.30 61.82	2.21% (7,692.01)	Aa1/AA+ AA+	1.00 0.97
91282CFH9	UNITED STATES TREASURY 3.125 08/31/2027	250,000.00	09/08/2022 3.36%	247,275.39 249,361.21	98.86 4.13%	247,148.50 2,611.24	0.79% (2,212.71)	Aa1/AA+ AA+	1.17 1.12
91282CFU0	UNITED STATES TREASURY 4.125 10/31/2027	280,000.00	01/09/2023 3.67%	285,490.63 281,523.61	99.94 4.17%	279,835.92 1,945.92	0.89% (1,687.69)	Aa1/AA+ AA+	1.34 1.27
91282CGC9	UNITED STATES TREASURY 3.875 12/31/2027	280,000.00	01/26/2023 3.62%	283,215.63 280,979.52	99.58 4.17%	278,818.68 29.48	0.89% (2,160.84)	Aa1/AA+ AA+	1.50 1.44
9128283W8	UNITED STATES TREASURY 2.75 02/15/2028	300,000.00	03/08/2023 4.37%	278,660.16 292,973.47	97.79 4.17%	293,367.30 3,099.45	0.94% 393.83	Aa1/AA+ AA+	1.63 1.55
91282CGP0	UNITED STATES TREASURY 4.0 02/29/2028	400,000.00	02/26/2025 4.12%	398,687.50 399,272.56	99.73 4.16%	398,937.60 5,347.83	1.27% (334.96)	Aa1/AA+ AA+	1.67 1.57
91282CGT2	UNITED STATES TREASURY 3.625 03/31/2028	450,000.00	-- 3.63%	449,876.96 449,956.43	99.09 4.17%	445,886.55 4,100.41	1.42% (4,069.88)	Aa1/AA+ AA+	1.75 1.66
91282CHA2	UNITED STATES TREASURY 3.5 04/30/2028	575,000.00	-- 3.61%	572,176.76 573,953.22	98.82 4.17%	568,239.15 3,390.63	1.81% (5,714.07)	Aa1/AA+ AA+	1.84 1.74
91282CHE4	UNITED STATES TREASURY 3.625 05/31/2028	250,000.00	06/15/2023 3.95%	246,347.66 248,588.27	99.02 4.16%	247,539.00 767.59	0.79% (1,049.27)	Aa1/AA+ AA+	1.92 1.82
91282CHQ7	UNITED STATES TREASURY 4.125 07/31/2028	430,000.00	-- 4.64%	420,509.38 425,916.97	99.93 4.16%	429,697.71 7,398.79	1.37% 3,780.74	Aa1/AA+ AA+	2.08 1.94
91282CHX2	UNITED STATES TREASURY 4.375 08/31/2028	450,000.00	-- 4.53%	446,964.85 448,666.25	100.42 4.17%	451,898.55 6,580.33	1.44% 3,232.30	Aa1/AA+ AA+	2.17 2.02
91282CJA0	UNITED STATES TREASURY 4.625 09/30/2028	450,000.00	10/19/2023 4.97%	443,285.16 446,945.44	100.97 4.17%	454,359.60 5,231.56	1.45% 7,414.16	Aa1/AA+ AA+	2.25 2.10
91282CJN2	UNITED STATES TREASURY 4.375 11/30/2028	350,000.00	12/21/2023 3.82%	358,599.61 354,206.90	100.46 4.17%	351,613.15 1,296.96	1.12% (2,593.75)	Aa1/AA+ AA+	2.42 2.26
91282CJW2	UNITED STATES TREASURY 4.0 01/31/2029	450,000.00	-- 4.20%	446,181.64 447,948.09	99.57 4.18%	448,066.35 7,508.29	1.43% 118.26	Aa1/AA+ AA+	2.59 2.39
91282CKD2	UNITED STATES TREASURY 4.25 02/28/2029	300,000.00	02/27/2024 4.30%	299,378.91 299,669.05	100.21 4.17%	300,621.00 4,261.55	0.96% 951.95	Aa1/AA+ AA+	2.67 2.46

Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P/ Fitch	Maturity Duration
91282CKG5	UNITED STATES TREASURY 4.125 03/31/2029	400,000.00	-- 4.32%	396,410.15 398,076.36	99.88 4.17%	399,531.20 4,147.54	1.27% 1,454.84	Aa1/AA+ AA+	2.75 2.55
91282CKP5	UNITED STATES TREASURY 4.625 04/30/2029	400,000.00	04/29/2024 4.66%	399,296.88 399,601.85	101.20 4.17%	404,781.20 3,116.85	1.29% 5,179.35	Aa1/AA+ AA+	2.83 2.61
91282CKT7	UNITED STATES TREASURY 4.5 05/31/2029	350,000.00	06/26/2024 4.33%	352,570.31 351,521.61	100.91 4.17%	353,172.05 1,334.02	1.13% 1,650.44	Aa1/AA+ AA+	2.92 2.70
91282CKX8	UNITED STATES TREASURY 4.25 06/30/2029	450,000.00	-- 3.97%	455,619.14 453,453.69	100.23 4.17%	451,019.70 51.97	1.44% (2,433.99)	Aa1/AA+ AA+	3.00 2.79
91282CLC3	UNITED STATES TREASURY 4.0 07/31/2029	350,000.00	07/30/2024 4.08%	348,796.88 349,258.10	99.52 4.17%	348,331.90 5,839.78	1.11% (926.20)	Aa1/AA+ AA+	3.08 2.82
91282CFJ5	UNITED STATES TREASURY 3.125 08/31/2029	500,000.00	-- 3.52%	491,214.84 494,374.11	96.91 4.17%	484,570.50 5,222.49	1.54% (9,803.61)	Aa1/AA+ AA+	3.17 2.94
91282CLN9	UNITED STATES TREASURY 3.5 09/30/2029	325,000.00	01/28/2025 4.37%	313,193.36 316,780.36	97.97 4.17%	318,398.60 2,859.29	1.01% 1,618.24	Aa1/AA+ AA+	3.25 3.01
91282CLR0	UNITED STATES TREASURY 4.125 10/31/2029	325,000.00	12/17/2024 4.29%	322,676.76 323,408.49	99.84 4.18%	324,479.35 2,258.66	1.03% 1,070.86	Aa1/AA+ AA+	3.34 3.06
91282CMA6	UNITED STATES TREASURY 4.125 11/30/2029	300,000.00	12/09/2024 4.07%	300,750.00 300,515.42	99.84 4.17%	299,531.40 1,048.16	0.95% (984.02)	Aa1/AA+ AA+	3.42 3.14
91282CMD0	UNITED STATES TREASURY 4.375 12/31/2029	425,000.00	-- 4.38%	424,895.51 424,927.21	100.64 4.17%	427,739.13 50.53	1.36% 2,811.92	Aa1/AA+ AA+	3.50 3.21
91282CMG3	UNITED STATES TREASURY 4.25 01/31/2030	400,000.00	02/26/2025 4.14%	401,843.75 401,342.59	100.22 4.18%	400,875.20 7,091.16	1.28% (467.39)	Aa1/AA+ AA+	3.59 3.24
91282CGQ8	UNITED STATES TREASURY 4.0 02/28/2030	400,000.00	03/10/2025 4.00%	400,031.25 400,023.04	99.39 4.18%	397,578.00 5,347.83	1.27% (2,445.04)	Aa1/AA+ AA+	3.67 3.33
91282CMZ1	UNITED STATES TREASURY 3.875 04/30/2030	375,000.00	05/19/2025 4.09%	371,484.38 372,276.66	98.92 4.18%	370,942.50 2,448.20	1.18% (1,334.16)	Aa1/AA+ AA+	3.83 3.50
91282CNG2	UNITED STATES TREASURY 4.0 05/31/2030	375,000.00	06/23/2025 3.90%	376,640.63 376,301.94	99.32 4.19%	372,465.75 1,270.49	1.19% (3,836.19)	Aa1/AA+ AA+	3.92 3.58
91282CNK3	UNITED STATES TREASURY 3.875 06/30/2030	400,000.00	07/24/2025 3.96%	398,421.88 398,720.68	98.84 4.19%	395,375.20 42.12	1.26% (3,345.48)	Aa1/AA+ AA+	4.00 3.66
91282CNN7	UNITED STATES TREASURY 3.875 07/31/2030	325,000.00	09/29/2025 3.73%	326,993.16 326,683.74	98.82 4.19%	321,165.98 5,253.19	1.02% (5,517.77)	Aa1/AA+ AA+	4.08 3.68
91282CNX5	UNITED STATES TREASURY 3.625 08/31/2030	375,000.00	09/22/2025 3.69%	373,974.61 374,134.42	97.83 4.20%	366,870.00 4,543.56	1.17% (7,264.42)	Aa1/AA+ AA+	4.17 3.77
91282CPA3	UNITED STATES TREASURY 3.625 09/30/2030	375,000.00	10/30/2025 3.72%	373,359.38 373,581.48	97.80 4.20%	366,738.38 3,417.01	1.17% (6,843.11)	Aa1/AA+ AA+	4.25 3.86

City of American Canyon | Account #10130 | As of June 30, 2026

Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P/ Fitch	Maturity Duration
91282CPD7	UNITED STATES TREASURY 3.625 10/31/2030	315,000.00	10/30/2025 3.72%	313,658.79 313,837.28	97.74 4.20%	307,887.93 1,923.81	0.98% (5,949.35)	Aa1/AA+ AA+	4.34 3.94
91282CPR6	UNITED STATES TREASURY 3.625 12/31/2030	400,000.00	01/29/2026 3.80%	396,843.75 397,110.87	97.64 4.21%	390,578.00 39.40	1.25% (6,532.87)	Aa1/AA+ AA+	4.50 4.10
91282CQD6	UNITED STATES TREASURY 3.5 02/28/2031	400,000.00	03/10/2026 3.70%	396,343.75 396,569.37	97.07 4.20%	388,265.60 4,679.35	1.24% (8,303.77)	Aa1/AA+ AA+	4.67 4.20
Total US Treasury		**14,780,000.00**	**3.89%**	**14,704,669.28** **14,741,938.81**	**99.28** **4.16%**	**14,671,593.12** **118,418.20**	**46.77%** **(70,345.69)**		**2.72** **2.51**
Total Portfolio		**31,788,597.49**	**4.16%**	**31,366,161.99** **31,476,220.02**	**98.13** **4.31%**	**31,369,435.63** **257,656.43**	**100.00%** **(106,784.39)**		**2.96** **2.53**
Total Market Value + Accrued						**31,627,092.07**			

TITLE

Backflow Prevention and Cross-Connection Control Ordinance

RECOMMENDATION

Waive first reading, read by title only, and adopt an Ordinance to amend the American Canyon Municipal Code adding Chapter 13.08 to Title 13 relating to backflow prevention and cross-connection control; amending Chapter 13.04 relating to water and sewer systems; amending Chapter 13.06 relating to water rates and connection fees; amending Section 16.14.080 relating to irrigation efficiency; amending Section 19.51.060 relating to standard conditions of approval; amending Title 14 relating to sewer and sanitation services; and amending Title 1 relating to General Provisions.

CONTACT

Erica Ahmann Smithies, P.E., Public Works Director
Norman Woods, Assistant Public Works Director

BACKGROUND & ANALYSIS

The City of American Canyon is required to comply with regulations established by the State Water Resources Control Board, Division of Drinking Water, which mandate that public water systems implement a backflow prevention and cross-connection control program pursuant to Title 17, California Code of Regulations, Sections 7583 through 7605, including Section 7605, which specifically requires each public water system to develop and maintain a cross-connection control program to protect the public water supply from contamination.

Currently, the City administers backflow prevention requirements through a combination of conditions of approval and engineering standards. However, the absence of a unified municipal code provision limits consistency, enforceability, and program effectiveness.

The City of Napa has adopted a comprehensive ordinance (Napa Municipal Code Chapter 13.08) that is recognized as a regional best practice. Staff recommends adoption of a comparable chapter tailored to American Canyon to standardize requirements, strengthen enforcement authority, and ensure protection of the City's potable water system.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Infrastructure: "Develop and maintain infrastructure resources to support sustainable growth."

FISCAL IMPACT

Fiscal impact is minimal. Program administration costs will be recovered through annual backflow administration fees established by City Council resolution.

ENVIRONMENTAL REVIEW

This action is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15061(b)(3), as it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment.

COMMUNICATION

Level 3: Broad Communication

Communication intended to inform the general public, community stakeholders, or a broad group of affected parties through channels such as public notices, website updates, social media, public meetings, and other outreach methods. The purpose is to promote transparency, awareness, and public access to information regarding City actions, programs, and policies.

ATTACHMENTS:

1. Backflow and Cross Connection Ordinance
Exhibit A: Backflow Prevention and Cross-Connection Control Program
Exhibit B: Water Service Regulations
Exhibit C: Water Rates and Charges
Exhibit D: Water Efficient Landscaping
Exhibit E: Water Efficient Landscaping
Exhibit F: Standard Conditions of Approval
Exhibit G: Public Works Standards
Exhibit H: General Penalty and Enforcement

ORDINANCE NO. 2026-XX

AN ORDINANCE OF THE CITY COUNCIL OF AMERICAN CANYON ADD CHAPTER 13.08 TO TITLE 13 OF THE AMERICAN CANYON MUNICIPAL CODE RELATING TO BACKFLOW PREVENTION AND CROSS-CONNECTION CONTROL; AMENDING CHAPTER 13.04 RELATING TO WATER AND SEWER SYSTEMS; AMENDING CHAPTER 13.06 RELATING TO WATER RATES AND CONNECTION FEES; AMENDING SECTION 16.14.080 RELATING TO IRRIGATION EFFICIENCY; AMENDING SECTION 19.51.060 RELATING TO STANDARD CONDITIONS OF APPROVAL; AMENDING TITLE 14 RELATING TO SEWER AND SANITATION SERVICES; AND AMENDING TITLE 1 RELATING TO GENERAL PROVISIONS

WHEREAS, the City of American Canyon owns and operates a public water system that provides potable water service to residents, businesses, institutions, and other customers within the City; and

WHEREAS, the State Water Resources Control Board, Division of Drinking Water, requires public water systems to implement and maintain backflow prevention and cross-connection control programs pursuant to Title 17 of the California Code of Regulations, Sections 7583 through 7605; and

WHEREAS, Title 17, California Code of Regulations, Section 7605 requires each public water system to develop and maintain an effective cross-connection control program to protect the public water system from contamination or pollution resulting from backflow conditions and cross-connections; and

WHEREAS, cross-connections and backflow conditions present a documented risk to potable water systems by allowing contaminants from private plumbing systems, irrigation systems, fire suppression systems, auxiliary water supplies, and industrial or commercial processes to enter the public water supply; and

WHEREAS, protection of the City's potable water system is necessary to preserve public health, safety, and welfare and to ensure continued compliance with applicable State and federal drinking water regulations; and

WHEREAS, the City currently administers backflow prevention requirements through conditions of approval, engineering standards, and administrative practices; however, the City Council finds that establishing a comprehensive and codified program will improve consistency, enforceability, and long-term program effectiveness; and

WHEREAS, the City Council finds that adoption of uniform standards for the installation, testing, maintenance, inspection, certification, reporting, and enforcement of backflow prevention assemblies is necessary to ensure a reliable and effective cross-connection control program; and

WHEREAS, the City Council finds that adoption of a comprehensive Backflow Prevention and Cross-Connection Control Program, codified as Chapter 13.08 of the American Canyon Municipal Code, is necessary to satisfy the requirements of Title 17 of the California Code of Regulations and to protect the City's drinking water system; and

WHEREAS, the City Council recognizes that the City of Napa has adopted a similar program under Napa Municipal Code Chapter 13.08, which provides a regional model for program structure, administration, and enforcement; and

WHEREAS, the City Council finds that adoption of a comparable ordinance tailored to the City of American Canyon will improve regulatory clarity, strengthen enforcement authority, standardize procedures, and improve administrative efficiency; and

WHEREAS, the City Council desires to amend related provisions of the American Canyon Municipal Code, including water, sewer, irrigation, development standards, sanitation services, and general provisions, to ensure consistency with the adoption of Chapter 13.08; and

WHEREAS, on July 21, 2026, the City Council of the City of American Canyon conducted a duly noticed public hearing regarding this Ordinance, at which time all interested persons were provided an opportunity to provide testimony and submit comments.

NOW, THEREFORE, BE IT ORDAINED that the City Council of the City of American Canyon, having considered all the evidence, including any submitted by member of the public, hereby adopts the Backflow Prevention and Cross-Connection Control Ordinance as depicted in Exhibit A and included in this ordinance.

SECTION 1. The City Council authorizes the Public Works Director, or designee, to administer and enforce the Backflow Prevention and Cross-Connection Control Program in order to ensure consistent implementation and compliance.

Chapter 13.08 of Title 13 of the American Canyon Municipal Code, titled "Backflow Prevention and Cross-Connection Control," is hereby added as set forth in Exhibit A, attached hereto and incorporated herein by reference.

SECTION 2. CEQA Pursuant to the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and CEQA Guidelines Section 15061(b)(3), this Ordinance is exempt because it can be seen with certainty that there is no possibility that the adoption of this Ordinance may have a significant effect on the environment, as it establishes administrative and regulatory standards for water system protection.

SECTION 3. EFFECTIVE DATE This Ordinance shall take effect thirty (30) days following adoption and publication as required by law.

SECTION 4. **SEVERABILITY**. If any section, sentence, clause or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and adopted this Ordinance and each section, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

SECTION 5. CUSTODIAN OF RECORDS. The documents and materials that constitute the record of proceedings on which this Ordinance is based are located at the City Clerk's office located at 4831 Broadway, Suite 201, American Canyon, CA 94503. The custodian of these records is the City Clerk.

The foregoing Ordinance was introduced at a regular meeting of the City Council of the City of American Canyon, State of California, held on the 18th day of August, 2026 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

The foregoing Ordinance was adopted at a regular meeting of the City Council of the City of American Canyon, State of California, held on the _____ day of _____, _____, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

_____
Taresa Geilfuss, CMC, City Clerk

APPROVED AS TO FORM:

_____
Matthew Summers, City Attorney

EXHIBIT A

CHAPTER 13.08 BACKFLOW PREVENTION AND CROSS-CONNECTION CONTROL ORDINANCE

13.08.010. PURPOSE AND INTENT

This document establishes the administrative procedures, technical standards, and fee schedule for implementing Chapter 13.08 of the American Canyon Municipal Code, “Backflow Prevention and Cross-Connection Control.”

The intent is to ensure that all backflow prevention assemblies connected to the City’s potable water system are properly installed, tested, and maintained to protect public health and comply with California Code of Regulations, Title 17, Sections 7583–7605.

13.08.020. APPLICABILITY

This ordinance applies to any property owner that receives potable water service by the City of American Canyon and requires a new backflow prevention and cross-control device (“device”) on their property or owns an existing device on their property.

13.08.020. APPLICABILITY

This ordinance applies to any property owner that receives potable water service by the City of American Canyon and requires a new backflow prevention and cross-control device (“device”) on their property or owns an existing device on their property.

13.08.030 PROGRAM ADMINISTRATION

A. The Water Division within the Public Works Department shall administer the program under the authority of the Public Works Director or designee.

B. The Program Administrator shall:

1. Maintain a database of all registered backflow prevention assemblies.
2. Maintain a current list of certified testers.
3. Track annual test results and non-compliance notices.
4. Coordinate enforcement actions with Utility Billing and Code Enforcement.

13.08.040. APPROVED DEVICES

A. Only assemblies approved by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC-FCCCHR) and accepted by the City Engineer shall be installed. The City Engineer shall maintain and update the Approved Assembly List consistent with City Standard Details and Code Section 18.42.010 authority.

B. Device types include:

1. Air Gap Separation (AG)
2. Reduced Pressure Principal Assembly (RP)
3. Double Check Valve Assembly (DCVA)
4. Pressure Vacuum Breaker (PVB)

C. The Public Works Director may approve equivalent devices upon proof of listing and performance testing.

D. The Water Division shall publish and maintain an Approved Assembly List, updated annually.

13.08.050. CERTIFIED TESTERS

A. Certification Requirements

Testers must:

1. Hold a valid certification from AWWA or American Backflow Prevention Association (ABPA).
2. Provide proof of calibration of test equipment (within past 12 months).
3. Maintain a City of American Canyon business license.
4. Submit an application to be added to the City's Certified Tester List.

B Renewal

Tester approval is valid for one calendar year and must be renewed annually with updated certification and equipment calibration documentation.

C Conduct

Certified testers must perform all testing in accordance with AWWA Manual M14 and report findings honestly and accurately. Any falsified report shall result in immediate removal from the City's approved list and possible referral to regulatory authorities.

13.08.060 TESTING AND REPORTING REQUIREMENTS

A. Initial Testing

1. Every new backflow prevention assembly serving a new building, new water service, or new facility shall be tested and certified by the City prior to final occupancy or water service activation.

B. Annual Testing

1. Annually thereafter, the property owner shall be responsible for ensuring that all required backflow prevention assembly testing is completed by a Certified Backflow Prevention Assembly Tester approved by the City and that all required test reports are submitted to the Water Division in accordance with this Chapter.

2. The Water Division shall send annual notifications to property owners at least thirty (30) days prior to the testing due date. The Public Works Director, or designee, may exercise reasonable administrative discretion in the enforcement of testing deadlines when circumstances warrant, including when additional time is reasonably necessary to complete repairs, retesting, or other corrective actions, provided such discretion is consistent with this Chapter and applicable State regulations.

C. Reporting

1.Test reports must be submitted by the property owner to the City prior to the annual due date and within ten (10) business days after testing using the City-approved Backflow Test Report Form.

2. Reports may be submitted electronically via the City's online portal or by mail to the Water Division.

3. Only test reports completed by a Certified Backflow Prevention Assembly Tester approved by the City shall be accepted. Reports may be submitted in paper or electronic format and shall bear either an original handwritten signature or an authenticated electronic signature of the certified tester. The Public Works Director, or designee, may establish administrative procedures by resolution for the electronic submission, verification, and acceptance of test reports.

D. Failed Tests

1. If an assembly fails testing, it must be repaired or replaced within ten (10) calendar days.

2. A re-test must be performed and reported within five (5) business days after repair.

E. Non-Compliance

Failure to comply with testing or repair deadlines will result in:

1. Issuance of a Notice of Violation (NOV);
2. Application of a Non-Compliance Administrative Fee; and
3. Potential termination of water service until compliance is achieved.

13.08.070. INSTALLATION REQUIREMENTS

1. Installation shall conform to City Standard Details and applicable plumbing codes.

2. Assemblies shall not be buried or installed in pits subject to flooding.

3. Assemblies shall be installed in an approved security cage or enclosure meeting City Standard Details.

4. Vault installations are not permitted unless specifically approved by the City Engineer.

5. The customer is responsible for maintenance of the installation area, including keeping enclosures accessible and free from vegetation or obstructions.

6. Fire protection systems shall install assemblies approved for fire-line use per AWWA C510/C511 and NFPA standards.

13.08.080. RECORDKEEPING

The Water Division shall:

1. Maintain records necessary to administer and enforce the City's Backflow Prevention and Cross-Connection Control Program. The Water Division shall maintain digital records of all backflow prevention assemblies, including their locations, owners, and test results, for a minimum period of five (5) years.

2. Recordkeeping procedures, including requirements for documentation, retention periods, reporting, and maintenance of records related to backflow prevention assemblies, test results, and program activities, shall be established and adopted by City Council Resolution.

13.08.090. FEES

The following fees shall be established and may be updated annually by City Council Resolution. Any annual adjustment to the fees shall be based on the Municipal Cost Index published by American City & County, or a successor agency or publication, as the identified inflation adjustment factor. The City Council may consider additional factors necessary to ensure that fees remain consistent with the reasonable costs associated with administering the Backflow Prevention and Cross-Connection Control Program.

Fee Type	**Description**	**Amount***
Annual Program Administration Fee	Charged per registered backflow assembly to recover administrative costs.	Established by City Council Resolution
Late Test Report Fee	Charged if annual test report is not received by due date.	Established by City Council Resolution
Non-Compliance Reinspection Fee	Charged for each follow-up inspection by City staff.	Established by City Council Resolution
Certified Tester Application Fee	Annual fee to maintain listing on approved tester list.	Established by City Council Resolution
Backflow Prevention Assembly Installation Permit Fee	Fee for review, approval, inspection, documentation, and administration associated with the initial installation, relocation, replacement, or modification of a backflow prevention assembly. Fees may vary based on the number of assemblies, assembly type, size, complexity, and level of review required.	Established by City Council Resolution
Backflow Prevention Assembly Annual Testing Fee (if applicable)	Fee associated with administration of the annual backflow prevention assembly testing program, including record management, compliance tracking, and reporting requirements.	Established by City Council Resolution
Backflow Prevention Assembly Reinspection Fee (if applicable)	Fee for additional inspections, reviews, or administrative efforts required due to failed tests, incomplete documentation, non-compliance, or corrective actions.	Established by City Council Resolution

*Actual dollar amounts to be inserted by resolution.

13.08.100**.** ENFORCEMENT PROCEDURE

1. Notice of Violation (NOV): will be issued to the property owner responsible for the backflow prevention assembly. The NOV shall identify the violation, required corrective action, and compliance timeframe. The NOV may be served by mail, electronic delivery, personal delivery, or other method approved by the Public Works Director or designee. The compliance timeframe shall account for delivery of the notice and the time reasonably necessary to complete corrective actions, including repairs and retesting. The Public Works Director, or designee, may extend compliance deadlines when warranted.
2. Second Notice: The Public Works Director, or designee, may issue a Notice of Violation (NOV) requiring corrective action. If compliance is not achieved within fifteen (15) days of the date of the NOV for electronic delivery, or the postmarked date of the NOV for mailed delivery, or within another timeframe specified in the NOV, the City may pursue additional enforcement actions as authorized by this Chapter. If a violation remains unresolved and poses a threat to public health or the quality of the City's water supply, the City may perform or arrange for the repair or replacement of the backflow prevention assembly as necessary to protect the public water system. The property owner shall be responsible for reimbursement of all reasonable costs incurred by the City associated with such corrective actions. Fees established pursuant to this Chapter shall be based on the reasonable costs incurred by the City for administering, implementing, and enforcing the Backflow Prevention and Cross-Connection Control Program. Fee amounts may be based on factors including, but not limited to, staff time, inspection requirements, recordkeeping, reporting, testing administration, program management, and other costs necessary to provide the applicable service. Fees shall be established and updated by City Council Resolution and shall not exceed the reasonable cost of providing the associated service or administering the program
3. Final Notice / Shutoff Warning: If still noncompliant after 30 days from the initial NOV issuance date, water service may be terminated per AMC §13.08.090.
4. Reinstatement: Service restored upon receipt of passing test report and payment of applicable fees.

13.08.110 ADMINISTRATIVE APPEALS

A. Customers may appeal any enforcement action when supported by substantial information under AMC §13.08.100 to the City Manager within ten (10) days of a NOV issuance. The decision of the City Manager is final.

13.08.120. FORMS AND REFERENCES

A. The following forms and references are adopted by reference and maintained by the Water Division:

1. City of American Canyon Backflow Test Report Form.
2. Certified Tester Application Form.
3. USC-FCCCHR Approved Assemblies List.
4. City of American Canyon Standard Detail Drawings for Backflow Assemblies.
5. AWWA Manual M14 – Recommended Practice for Backflow Prevention and Cross-Connection Control.

B. Forms, standard details, and administrative documents, provided such updates do not amend the substantive requirements of Chapter 13.08, may be updated by the Public Works Director or designee without further City Council action.

EXHIBIT B: AMENDMENTS TO AMERICAN CANYON MUNICIPAL CODE SECTION 13.04 – WATER SERVICE REGULATIONS

Section 13.04 of the American Canyon Municipal Code is hereby amended to add the following:

All new water service connections, and any modifications to existing water service connections that require a building permit, encroachment permit, or discretionary or ministerial development review approval, shall comply with Chapter 13.08, Backflow Prevention and Cross-Connection Control.

Existing water service connections that are not subject to modification, redevelopment, or permit review may remain in their current condition. If future construction, redevelopment, change in use, or permit activity triggers City review, the water service shall be brought into compliance with Chapter 13.08 as a condition of approval.

All applicable program fees, including inspection fees, testing fees, and administrative fees associated with Chapter 13.08, shall be assessed at the time of permit issuance or development review.

EXHIBIT C: AMENDMENTS TO AMERICAN CANYON MUNICIPAL CODE SECTION 13.10 – WATER RATES AND CHARGES

Section 13.10 is hereby amended to add the following provision:

The City Council may establish by resolution an annual backflow assembly testing administration fee for each backflow prevention assembly subject to inspection, testing, or compliance under Chapter 13.08. The fee shall be established to recover the reasonable costs of program administration, inspection coordination, and compliance oversight.

EXHIBIT D: AMENDMENTS TO AMERICAN CANYON MUNICIPAL CODE SECTION 16.14.080 – WATER EFFICIENT LANDSCAPING

Section 16.14.080 is hereby amended to read as follows:

The Backflow Prevention and Cross-Connection Control Program shall apply to all water service connections where an actual or potential cross-connection exists, including, but not limited to, residential, commercial, industrial, institutional, and multi-family properties.

Irrigation systems are recognized as potential cross-connection hazards due to the possibility of introducing contaminants into the potable water system, including, but not limited to, fertilizers, pesticides, reclaimed or recycled water connections, landscaping chemicals, and stagnant water contained within irrigation piping. All irrigation systems shall be evaluated for the degree of hazard and shall include an approved backflow prevention assembly when required by the Water Division in accordance with this Chapter, applicable State regulations, and accepted industry standards.

Single-family residential properties shall not be exempt from the requirements of this Chapter. The Water Division may require installation, testing, maintenance, repair, or replacement of backflow prevention assemblies at single-family residential properties when an actual or potential cross-connection hazard exists or when necessary to protect the public water system. Conditions warranting backflow protection may include, but are not limited to, irrigation systems with chemical injection or fertilizer systems, auxiliary water supplies or wells, swimming pools or spas, fire protection systems, booster pump systems, or other connections that may create a risk to public health or water quality.

The Water Division shall evaluate each connection based on the degree of hazard presented and may establish appropriate backflow prevention requirements necessary to protect the City's potable water supply. All required backflow prevention assemblies shall be installed, tested, maintained, and replaced in accordance with Chapter 13.08, Backflow Prevention and Cross-Connection Control.

EXHIBIT E: AMENDMENTS TO AMERICAN CANYON MUNICIPAL CODE SECTION 16.14.080 – WATER EFFICIENT LANDSCAPING

Section 16.14.080 is hereby amended to read as follows:

All irrigation systems shall include an approved backflow prevention assembly. The assembly shall be installed and maintained in accordance with Chapter 13.08, Backflow Prevention and Cross-Connection Control.

EXHIBIT F: AMENDMENTS TO AMERICAN CANYON MUNICIPAL CODE SECTION 19.51.060 – STANDARD CONDITIONS OF APPROVAL

Section 19.51.060, Condition of Approval No. (12), is hereby amended to read as follows:

All water services, including domestic, irrigation, and fire services, shall be equipped with approved backflow prevention assemblies. The assemblies shall be installed, tested, and maintained in accordance with Chapter 13.08 prior to final occupancy approval.

EXHIBIT G: AMENDMENTS TO TITLE 14 – PUBLIC WORKS STANDARDS

Title 14 of the American Canyon Municipal Code is hereby amended to require that all standard plans, specifications, and construction details for water system improvements be updated to reflect the requirements of Chapter 13.08.

These updates shall include, but are not limited to, standards for backflow prevention assembly installation, vault sizing and placement, clearance requirements, access requirements, and approved device types consistent with applicable state and industry standards.

All water system improvements shall be constructed in accordance with these updated standards.

EXHIBIT H: AMENDMENTS TO TITLE 1 – GENERAL PENALTY AND ENFORCEMENT

Title 1 of the American Canyon Municipal Code is hereby amended to add the following:

Any violation of Chapter 13.08 is unlawful and may be enforced as an infraction, misdemeanor, or by administrative citation in accordance with City enforcement procedures. Each day a violation continues shall constitute a separate and distinct offense.

The remedies provided herein are cumulative and not exclusive.

TITLE
Utility Finance Update

RECOMMENDATION
Receive and file the Utility Finance Update presentation and provide any desired direction to staff regarding utility enterprise operations and financial planning.

CONTACT
Jemelyn Cruz, Finance Director

BACKGROUND & ANALYSIS
The City completed comprehensive enterprise rate studies for water, wastewater, and recycled water services in March 2024. The study assumed rate adjustments beginning in April 2024 and continuing annually thereafter. The rates were adopted by Council on April 2, 2024, and implementation commenced in January 2025.

The purpose of this annual review is to evaluate financial performance against rate study assumptions and assess the adequacy of reserves and long-term financial stability for each utility enterprise.

Wastewater Operations
The Wastewater Operations Fund has accumulated fund balance over time due to lower operating expenditures and the deferral of capital improvement projects prior to the rate study.

Revenue Analysis
Actual revenues have remained below rate study projections for all reviewed fiscal years.

Fiscal Year	Rate Study Revenue	Actual/Estimated Revenue	Variance
FY 2023-24	$5.89 million	$5.36 million	($0.54 million)
FY 2024-25	$7.17 million	$5.99 million	($1.18 million)
FY 2025-26	$8.42 million	$6.79 million	($1.63 million)

Revenue shortfalls are largely attributable to delayed implementation of the approved rate adjustments and the loss of a significant utility user. The estimated impacts include approximately $630,000 in FY 2023-24, $961,000 in FY 2024-25, and approximately $1.5 million in Fy 2025-26 due to implementation timing, with additional impacts form reduced customer demand.

Expenditure Analysis

Although revenues have underperformed projects, expenditures have generally remained below expectations.

For FY 2023-24, expenses were approximately $3.3 million lower than projected, driven by deferred capital projects and savings in salaries, contractual services and operations. Expenses in FY 2024-25 and FY 2025-26 have tracked closely with rate study assumptions.

Cash and Reserve Position

Despite recent operating deficits, the Wastewater Operations maintains strong cash reserves.

As of FY 2025-26:

- Operating Reserve: $1.681 million
- Capital Reserve: $1.060 million
- Unrestricted balance: $1.878 million
- Total Cash: $4.619 million

Recycled Water Operations

The City provided recycled water service since 2010. The Recycled Water Enterprise Funds were established in FY 2020-21 to separately account for operations and maintenance activities and support the goal of becoming a self-sustaining enterprise.

Financial Performance

The Recycled Water Fund continues to experience operating deficits; however, the gap between revenues and expenditures is narrowing.

Fiscal Year	Revenue	Expense	Surplus/(Deficit)
FY 2023-24	$206,974	$1.116 million	($909,090)
FY 2024-25	$314,442	$1.110 million	($795,210)
FY 2025-26	$560,131	$1.138 million	($578,259)

Revenues have underperformed rate study projections due primarily to delayed implementation of approved rate adjustments. The estimated impacts of delayed implementation were approximately $129,000 in FY 2023-24, $282,000 in FY 2024-25, and $326,000 in FY 2025-26.

Fund Balance

The fund's balance remains negative and is significantly below rate study assumptions:

Fiscal Year	Rate Study Projection	Actual
FY 2023-24	$160,693	($448,813)
FY 2024-25	($59,181)	($1,244,023)
FY 2025-26	($275,940)	($1,822,282)

Staff will continue monitoring expenditures and evaluating measures necessary to achieve long-term financial sustainability.

Water Operations

The previous water rate study was completed in 2017. Prior to the current rate study, the Water Operations Fund accumulated significant cash reserves due to lower-than-anticipated capital improvement contributions. The current rate study anticipated use of those accumulated reserves to support planned capital improvements.

Revenue Analysis

Water revenues have generally performed close to projections, despite implementation delays and the loss of a major customer.

Fiscal Year	Rate Study Revenue	Actual/Estimated Revenue
FY 2023-24	$10.46 million	$10.59 million
FY 2024-25	$11.69 million	$11.35 million
FY 2025-26	$12.86 million	$10.57 million

A major utility customer that historically generated approximately $1 million annually ceased service in the middle of FY 2024-25, contributing to lower-than-projected revenues.

Expenditure Analysis

FY 2023-24 expenditures were approximately $5 million below projections due to deferred capital spending, lower water purchase costs, debt service savings, staffing vacancies, and reduced operating costs. FY 2025-26 expenditures were also approximately $2.3 million below rate study projects due to lower water purchase costs and reduced debt service obligations.

Fund Balance and Reserves

The Water Operations fund continues to maintain reserve balances significantly above minimum targets.

As of FY 2025-26:

- Operating Reserve: $2.002 million
- Capital Reserve: $2.261 million
- Unrestricted Balance: $6.007 million
- Total Cash: $1.270 million

The fund remains financially healthy and capable of meeting both operating and capital reserve requirements.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Infrastructure: "Develop and maintain infrastructure resources to support sustainable growth."

FISCAL IMPACT

This report is informational only and does not require any budget amendment or financial action. The analysis presented is intended to inform the City Council regarding the financial status of the Water, Wastewater, and Recycled Water Operating Funds and the implementation of the 2024 Utility Rate Study. The review indicates that the Water and Wastewater Operating Funds remain financially stable and capable of meeting established reserve targets. The Recycled Water Enterprise Fund continues to require ongoing monitoring to achieve long-term financial sustainability.

ENVIRONMENTAL REVIEW

N/A

COMMUNICATION

Level 0: No Further Public Communication Needed

ATTACHMENTS:

Utility Finance Update Presentation
2024 Enterprise Rate Studies

CITY OF AMERICAN CANYON

Utility Finance Update

City Council Meeting

August 18, 2026



Presentation Outline

1. Overview of Enterprise Rate Study and Implementation steps taken
2. Wastewater Operations – FY 2024 to 2026
3. Recycled Water Operations – FY 2024 to 2026
4. Water Operations – FY 2024 to 2026

Utility Rate Study



- Rates were adopted April 2, 2024
- Rate study assumptions were that rates would change in April of 2024, and every January thereafter
- Implementation began with the January 2025 billing

Wastewater Operations

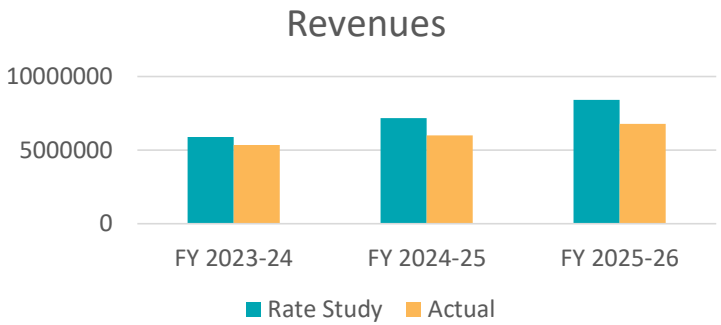


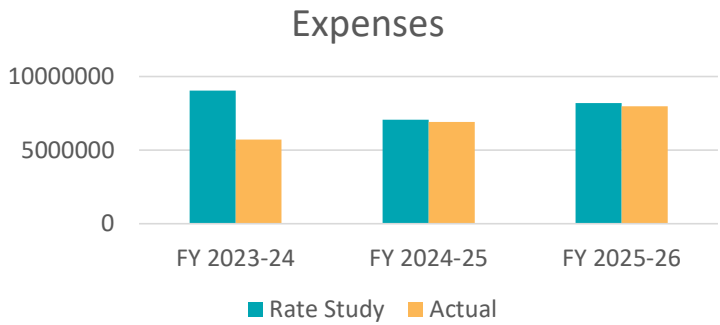
The Wastewater Operations Fund has been able to accumulate fund balance due to savings in reduction in operating expenses.



Capital Improvement Projects were deferred in the Fiscals Years prior to the rate study.

Wastewater Operations Revenues and Expenses





	FY 2023-24		FY 2024-25		FY 2025-26	
	Rate Study	Actual	Rate Study	Actual	Rate Study	Estimated
Revenues	5,891,619	5,355,061	7,174,752	5,993,666	8,416,987	6,791,202
Expenses	9,048,917	5,725,323	7,061,638	6,912,774	8,196,538	7,969,676
Surplus/(Deficit)	(3,157,298)	(370,262)	113,114	(919,108)	220,449	(1,178,474)

Wastewater Operations – Fund Balance

	Rate Study	Actual
Operating Reserve	1,565,000	1,565,000
Capital Reserve	936,000	936,000
Unrestricted	59,188	4,215,156
Total Cash	2,560,188	6,716,156

2023–2024

	Rate Study	Actual
Operating Reserve	1,626,000	1,626,000
Capital Reserve	968,000	968,000
Unrestricted	79,302	3,203,047
Total Cash	2,673,302	5,797,047

2024–2025

	Rate Study	Actual
Operating Reserve	1,681,000	1,681,000
Capital Reserve	1,060,000	1,060,000
Unrestricted	152,751	1,877,573
Total Cash	2,893,751	4,618,573

2025–2026

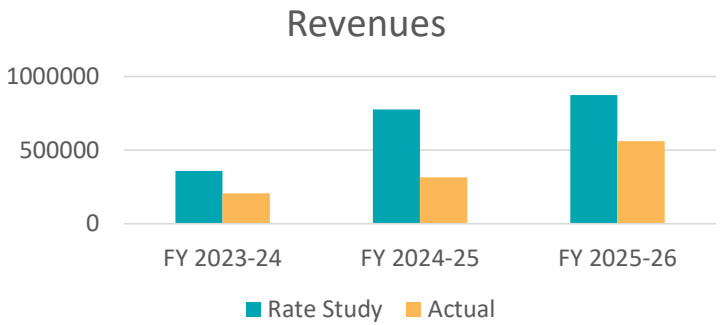
Internal Loan: $1.1M owed to WW Capacity

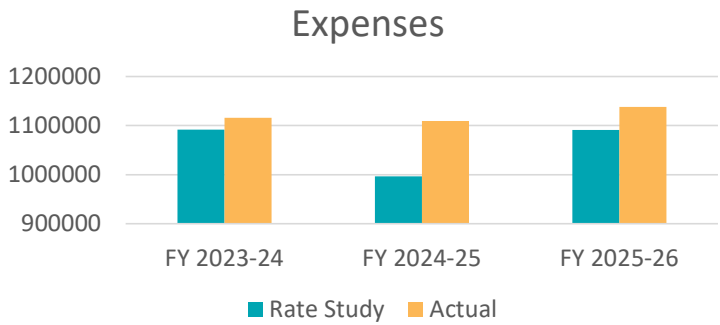
Recycled Water Operations

We have been providing recycled water since 2010 as part of the Water Enterprise.

In FY 2020-21, the Recycled Water Enterprise Fund was established to account for operation and maintenance activities of the City's recycled water collection and distribution system, with the goal of becoming self-supporting.

Recycled Water Revenues and Expenses





	FY 2023-24		FY 2024-25		FY 2025-26	
	Rate Study	Actual	Rate Study	Actual	Rate Study	Estimated
Revenues	358,718	206,974	776,613	314,442	874,215	560,131
Expenses	1,091,728	1,116,064	996,487	1,109,652	1,090,974	1,138,390
Surplus/(Deficit)	(733,010)	(909,090)	(219,874)	(795,210)	(216,759)	(578,259)

Recycled Water Operations – Fund Balance

FY 2023-24	• Rate Study	160,693
	• Actual	(448,813)
FY 2024-25	• Rate Study	(59,181)
	• Actual	(1,244,023)
FY 2025-26	• Rate Study	(275,940)
	• Estimated	(1,822,282)

Water Operations



The last rate study was in 2017

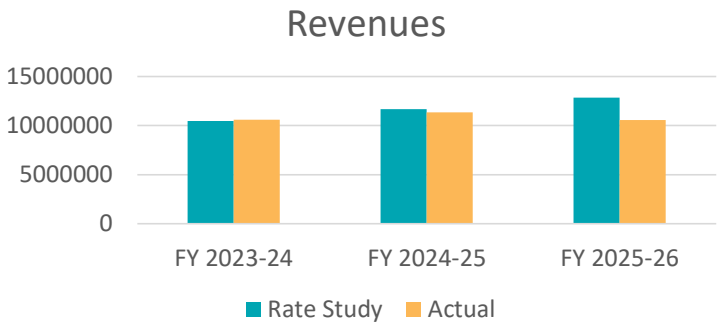


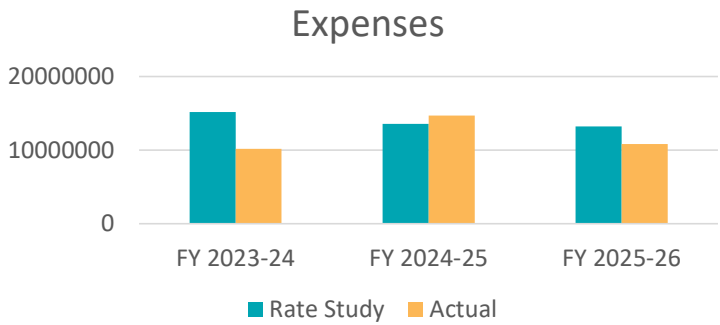
The operating fund was able to building cash balance due to lower than expected contributions to CIP.



In this rate study, operationally, revenues and expenses balance and fund balance is drawn due to Capital Improvement Projects, which was planned.

Water Operations Revenues and Expenses





	FY 2023-24		FY 2024-25		FY 2025-26	
	Rate Study	Actual	Rate Study	Actual	Rate Study	Estimated
Revenues	10,459,351	10,593,072	11,687,610	11,348,031	12,863,456	10,567,240
Expenses	15,186,464	10,198,936	13,590,236	14,684,762	13,211,497	10,846,056
Surplus/(Deficit)	(4,727,113)	394,136	(1,902,626)	(3,336,731)	(348,041)	(278,816)

Water Operations – Fund Balance

	Rate Study	Actual
Operating Reserve	1,898,000	1,898,000
Capital Reserve	1,870,900	1,870,900
Unrestricted	2,492,113	10,185,374
Total Cash	6,261,013	13,954,274

2023–2024

	Rate Study	Actual
Operating Reserve	2,249,000	2,249,000
Capital Reserve	2,079,900	2,079,900
Unrestricted	29,487	6,288,643
Total Cash	4,358,387	10,617,543

2024–2025

	Rate Study	Actual
Operating Reserve	2,002,000	2,002,000
Capital Reserve	2,260,500	2,260,500
Unrestricted	(252,154)	6,007,002
Total Cash	4,010,346	10,269,502

2025–2026

CITY OF AMERICAN CANYON

Questions?

CITY OF AMERICAN CANYON

Report for:

Sewer, Water, and Recycled Water Enterprise Rate Studies

March 2024

helping communities fund tomorrow

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1. Purpose and Overview of the Study

1.1 Purpose

The City of American Canyon (City) retained NBS to conduct a comprehensive rate study for its water, recycled water, and sewer enterprise funds. The City had a number of objectives and goals in mind for this study including meeting revenue requirements, reviewing current rate structures based on recent consumption data, funding capital improvements and changes in costs, and complying with certain legal requirements (e.g., California Constitution Article XIII D, Section 6, which is commonly referred to as Proposition 218 [Prop 218]). The City's broader objectives in this study include ensuring adequate funding for operating and capital costs, maintaining reasonable reserves, ensuring revenue stability in utility rates, and developing new recycled water and drought rates to reflect the revenue requirements at various stages of water conservation. The rates resulting from this study were developed in a manner that is consistent with industry standard cost-of-service principles. In addition to documenting the rate study methodology, this report is provided with the intent to assist the City in its continuing effort to maintain transparent communications with the residents and community it serves.

In developing new rates for the City's enterprise funds, NBS worked cooperatively with City staff and the City Council (Council) in selecting the appropriate rate alternatives that address the City's goals and objectives. Based on input provided by City staff, NBS proposes the rates summarized in this report. The Council has the final decision regarding the adoption of the proposed rates and whether to proceed with the Proposition 218 approval process.

1.2 The City of American Canyon Background

The City of American Canyon was incorporated in 1992 and is located in southern Napa County about thirty-five miles northeast of San Francisco.

WATER UTILITY

The City provides potable water service to approximately 6,825 metered customers. Of these potable water customers, residential customers represent approximately 90%, including single-family and multi-family users. Recent consumption records indicate that residential households use 59% of total water sold compared to all other non-residential customers who use the remaining 41%. The City's existing potable water system includes treatment, storage, pumping, and distribution infrastructure serving residential, industrial, commercial, and agricultural customers.[1]

The City relies on several sources of water to meet its needs including water from the State Water Project, water from the cities of Vallejo and Napa, and recycled water produced at the City's Water Reclamation Facility (WRF). The primary source of water is from the State Water Project (61%) via the North Bay Aqueduct, while the remaining supply consists of treated water from the cities of Vallejo and Napa as well as raw water from the City of Vallejo. The City has also partnered with the Sites Reservoir Project in 2017 to construct an off-river reservoir that will capture excess water from major storms that can be utilized during drier periods. This project is in the final stages of environmental review.

[1] Source: *https://www.cityofamericancanyon.org/ home/showpublisheddocument/17957*.

RECYCLED WATER UTILITY

The City owns and operates a complementary water and wastewater utility infrastructure that includes water reclamation and water reuse within the City limits. The current area served with recycled water is approximately 5 square miles with an overall potential service area of over 14 square miles, including potential customers within Napa County just outside City limits along the northern boundary.[2] The City currently serves public schools, public parks, industrial, commercial, and agricultural users, and produces approximately 80 million gallons of recycled water each year primarily for outdoor use. The City provides recycled water service to 76 customers.

Using recycled water for irrigation saves electricity, using one quarter of the energy needed to pump groundwater, and dramatically reduces the consumption of potable water. The additional treatment of wastewater at the reclamation plant also reduces nitrates which could otherwise impact the groundwater basin. As with reclaimed water providers throughout California, the City's recycled water rates tries to be competitive with other sources of irrigation water while ideally recovering basic operating costs.

SEWER UTILITY

The City currently provides sewer service to customers located within the City limits, as well as the Airport Industrial Area and a few areas within the unincorporated County area. The City completed construction of the Water Reclamation Facility (WRF) in 2002 to treats domestic and industrial wastewater flows.

Currently, the sewer utility services approximately 6,100 connections; the vast majority (77%) of which are single-family residential users. The remainder of the customers are primarily multi-family residential users (21%) and a handful of commercial and industrial users (3%). The current area served is approximately 6.3 square miles with an overall potential service area of over 8.5 square miles and includes approximately 53 miles of sewer mains, five pump stations, and 5 miles of sewer force main.[3]

1.3 Overview of the Study

Comprehensive rate studies, such as this one, typically include three components: (1) preparation of a financial plan that identifies the net revenue requirements for the utility; (2) analysis of the cost to serve each customer class; and (3) the rate structure design. These steps are shown in **Figure 1** and are intended to follow industry standards. They reflect the fundamental principles of cost-of-service rate making embodied in the American Water Works Association's (AWWA) *Principles of Water Rates, Fees, and Charges*,[4] also referred to as Manual M1 for water rates and the Water Environment Federation's (WEF) *Financing and Charges for Wastewater Systems*, Manual of Practice No. 27[5] for sewer rates. They also address requirements under Proposition 218 that rates do not exceed the cost of providing the service and be proportionate to the cost of providing service for all customers. In terms of the chronology of the study, these three steps represent the order in which they were performed in this Study.

[2] Source: *https://www.cityofamericancanyon.org/home/showpublisheddocument/9735*.
[3] Source: *https://www.cityofamericancanyon.org/home/showpublisheddocument/9733*.
[4] *Principles of Water Rates, Fees, and Charges*, Manual of Water Supply Practices, Manual M1, American Water Works Association, 7th Edition, 2017.
[5] *Financing and Charges for Wastewater Systems*, Manual of Practice No. 27, Water Environment Federation, 4th Edition, 2018.

Figure 1. Primary Components of a Rate Study



NBS projected revenues and expenditures, developed net revenue requirements, performed cost-of-service rate analyses, and developed new water, recycled water, and sewer rates for the City using this approach. The following sections in this report present an overview of the methodologies, assumptions, and data used along with the financial plans and rates developed. Detailed tables and figures documenting the development of the proposed rates are provided in the Appendices.

The City provided NBS with the data necessary to conduct the study, including historical, current, and projected revenues and expenditures, number of customer accounts, and water consumption data along with other operational and capital cost information.

FINANCIAL PLAN

As a part of the rate study, NBS projected revenues and expenditures on a cash-flow basis for the next five (5) years. The amount of rate revenue required that will allow reserves to be maintained at the recommended levels is known as the net revenue requirement. As current rate revenue falls short of the net revenue requirement, rate adjustments - or more accurately, adjustments in the total revenue collected from rates - are recommended. This report presents an overview of the methodologies, assumptions, and data used along with the financial plan and proposed rates developed in this study.[6]

COST-OF-SERVICE ANALYSIS

The basic purpose of the cost-of-service analysis (COSA) is to fairly and equitably allocate costs to customer classes. The cost-of-service analysis consists of two major components: (1) the classification of expenses, and (2) the allocation of costs to customer classes. For example, a key task is the "classification" of the water revenue requirements into the following categories:

- Commodity related costs
- Recycled water related costs
- Capacity related costs
- Customer service related costs
- Fire Protection related costs

[6] The complete financial plans are available in the *Appendices*.

In addition, here are the categories used in the "classification" of the sewer revenue requirements :

- Flow related costs
- Strength related costs
- Customer service related costs

These cost allocation factors represent the types of cost allocations in the cost of service. Further details are discussed below and documented in the *Appendices*.

RATE DESIGN ANALYSIS

During the rate design phase of the study, NBS and City staff worked together to develop rate alternatives to meet the City's objectives. It is important for the City to send proper price signals to its customers about the actual cost of providing service. This objective is typically addressed through both the magnitude of the rate adjustments and the rate structure design. In other words, both the amount of revenue collected and the way in which the revenue is collected from customers are important.

Several criteria are typically considered in setting rates and developing sound rate structures. The fundamentals of this process have been well documented in a number of rate-setting manuals, such as AWWA's Manual M1. The foundation for evaluating rate structures is generally credited to James C. Bonbright in *Principles of Public Utility Rates*,[7] which outlines pricing policies, theories, and economic concepts along with various rate designs. The following is a simplified list of the attributes of a sound rate structure:

- Rates should be easy to understand from the customer's perspective.
- Rates should be easy to administer from the utility's perspective.
- Rates should promote the efficient allocation of the resource.
- Rates should be equitable and non-discriminating (i.e., cost based).
- There should be continuity in the rate making philosophy over time.
- Addressing other utility policies (e.g., conservation and economic development).
- Rates should provide month-to-month and year-to-year revenue stability.

RATE STRUCTURE TERMINOLOGY

This section covers basic rate design criteria that NBS and City staff considered as a part of their review of the rate structure alternatives. One of the most fundamental points in considering rate structures is the relationship between fixed and variable costs. Fixed costs, such as debt service and personnel costs, typically do not vary with the amount of water consumed. In contrast, variable costs, such as the cost of purchased water, chemicals, and electricity, tend to change with the quantity of water sold. The vast majority of rate structures contain a fixed, or minimum, charge in combination with a volumetric charge.

- **Fixed Charges** – Fixed charges can be called base charges, minimum monthly charges, customer charges, fixed meter charges, etc. Fixed charges for water utilities typically increase by meter

[7] James C. Bonbright, Albert L. Danielsen, and David R. Kamerschen, *Principles of Public Utility Rates*, Arlington, VA: Public Utilities Report, Inc., Second Edition, 1988, pp. 383-384.

size. For example, a customer with a 2-inch meter has a fixed meter charge that is more than five times greater than the typical residential customer based on the safe operating capacity of the meter.[8] Since a large portion of utility costs are typically related to meeting capacity requirements, individual capacity demands are important in establishing equitable rates for customers.

- **Variable (Consumption-Based) Charges** – In contrast to fixed charges, variable costs, such as purchased water, groundwater replenishment costs, and the cost of electricity used in pumping water and chemicals for treatment, tend to change with the quantity of water produced. For a water utility, variable charges are calculated based on a metered consumption per unit price (e.g., per 100 cubic feet, or HCF).
- **Uniform (Single-Tier) Water Rates** – There are significant variations in the basic philosophy of variable charge rate structure alternatives. Under a uniform (single tier) rate structure, the cost per unit does not change with consumption and, therefore, provides a simple and straightforward approach from the customer's perspective and in terms of the City's rate administration.
- **Tiered Water Charges** – In contrast to a uniform tier, a tiered (or inclining block) rate structure attempts to send a price signal to customers that the cost of water increases as more water is consumed and is considered to be a more conservation-oriented rate structure. Tiered water rates are encouraged by state law and regulatory mandates but are also intended to represent the higher costs for customers who contribute more to peak usage and place greater demands on the system. The types of higher costs reflected in the higher tiers may include:
    - *Conservation Program Costs* - These are costs intended to encourage customers to eliminate inefficient and wasteful water use, and otherwise reduce consumption during peak periods.
    - *Purchased Water Costs* - When consumption exceeds the amount of water rights the City is allocated, the City may incur additional costs for replacement water in order to meet that increased demand. That replacement water comes at a higher cost.
    - *Energy Costs* - During summer months, the City may pay more in electric charges to pump, treat, and deliver water, and have a higher percentage of its energy bill in higher electricity "tiers."
    - *Higher Maintenance Costs* - Peak periods tend to have a higher number of service calls, capacity costs, and system maintenance issues when the water system is running at peak demand.

REGULATORY ISSUES

Drought and Water Conservation – On January 17, 2014, Governor Jerry Brown declared a State of Emergency throughout California due to severe drought conditions. On April 1, 2015, the Governor issued Executive Order B-29-15 mandating statewide water conservation of 25 percent. The specific conservation mandate for each community in California varied from 4 to 36 percent. Beginning in June 2016,

[8] *Principles of Water Rates, Fees, and Charges*, Manual of Water Supply Practices, Manual M1, AWWA, 7th Edition, 2017, pp. 151-152.

communities like the City were allowed to "self-certify" that they had sufficient supply to meet customer demand for three years but were no longer mandated to achieve a specific conservation target.

While conservation is good from a supply and environmental standpoint, it places added financial pressure on the water utility. Consumption impacts both revenue and expenses and, with positive conservation efforts continuing to be a priority for the City, revenue declines could put the water utility at risk in the future without changes in the consumption charges. To help offset these risks, the drought rates proposed in this study account for various stages of water conservation to allow the City to continue meeting its financial obligations going forward. The drought rates would be intended to go into effect whenever the City declares it is in a specific stage of its adopted drought mitigation plan.

KEY FINANCIAL ASSUMPTIONS

The following is a summary of the key financial assumptions used in the analyses. The following capital and operational fund targets reflect input from City staff in order to meet specific utility objectives:

- **Funding of Capital Projects** – The capital improvement costs will be funded with a combination of cash in reserves and the additional revenue generated from the proposed rate increases. The capital projects listed in the financial plan are from the City's capital improvement plan. The analysis assumes:
    - Capital costs attributable to existing customers are funded by rate revenue.
    - Capital costs attributable to growth are funded through revenue from the capacity fee reserves.
- **Reserve Targets** – For each utility (i.e., water, recycled water, and sewer), the City maintains reserves for operations, capital, and other specific needs. The details of each utility's reserve targets are covered in their respective section of this report.
- **Inflation and Growth Projections** – Assumptions were made in the analysis with regard to cost inflation in order to project future revenues and expenses for the study period. The following inflation factors were used in the analysis:
    - Customer growth is estimated at 1.80% per year.
    - General cost inflation is set at 3.0% annually.
    - Labor cost inflation is set at 3.5% annually.
    - Energy cost inflation is set at 7.44% annually.
    - Electricity cost inflation is set at 5.64% annually.
    - Fuel & Utilities cost inflation is set at 5.24% annually.
    - Construction cost inflation is set at 3.5% annually.

These inflation factors are based on long-term trends; therefore, the City should re-examine these factors in another year to assess whether short-term trends are a better reflection of the costs going forward.

2. Water Rate Study

2.1 Key Water Rate Study Issues

The City's water rate analysis was undertaken with a few specific objectives, including:

- Generating sufficient revenue to meet anticipated operating and maintenance costs and fund necessary capital improvement projects for the next five years.
- Continuing with a rate design that promotes revenue stability.
- Developing drought rates.
- Verifying that the City's tiered volumetric rates are cost of service based.
- Encouraging water conservation with a tiered rate structure.
- Maintaining adequate reserve levels to ensure continuity in operations.
- Complying with the legal requirements of Proposition 218 to ensure the cost of providing service is properly allocated amongst user classifications.

NBS developed various water rate alternatives as requested by City staff over the course of this study. All rate structure alternatives relied on industry standards and cost-of-service principles. The fixed charges and volume-based rates were calculated based on the net revenue requirements, number of customer accounts, water consumption and estimated water discharge, and other relevant data provided by the City.

The following are the basic components included in this analysis:

- **Developing Cost Allocations** – The water revenue requirements were "functionalized" into five categories: (1) commodity (or volume-based) costs; (2) recycled water costs; (3) fixed capacity costs; (4) customer service costs; and (5) fire protection costs. These functionalized costs were then used to develop unit costs based on various factors, such as water consumption, peaking factors, and number of accounts by meter size.
- **Determining Revenue Requirements by Customer Class** – The total revenue that needs to be collected from each customer class was determined using the functional costs and allocation factors. For example, customer costs are allocated based on the number of meters, while volume-related costs are allocated based on the water consumption of each customer class. Once the costs are allocated and the net revenue requirement for each customer class is determined, collecting the revenue requirements from each customer class is addressed within the rate design.
- **Evaluating Rate Design (Fixed vs. Variable Charges)** – The revenue requirements for each customer class are collected through a combination of fixed monthly service charges and volumetric rates.

2.2 Financial Plan

It is important for municipal utilities to not only collect sufficient revenues every year, but to also maintain reasonable reserves to handle emergencies, fund working capital, maintain a good credit rating, and generally follow sound financial management practices. Rate adjustments are governed by the need to meet operating and capital costs as well as maintain reasonable reserve funds. The current state of the City's water utility, with regard to these objectives, is as follows:

- **Meeting Net Revenue Requirements**: For FY 2023/24 through FY 2027/28, the projected net revenue requirement (that is, total annual expenses plus debt service and rate-funded capital costs, less non-rate revenues) for the water system is approximately $13.4 million per year. The net revenue requirement includes interfund transfers for debt service and capital projects totaling $4.0 million annually and are expected to continue over the next five years. As a result, the water utility is financially sound and requires only minimal rate adjustments over the 5-year rate adoption period. However, it is important to note that the utility would be facing a deficit that would grow to $3.8 million by the end of this period if these contributions were to cease.
- **Building and Maintaining Reserve Funds**: Reserve funds provide a basis for a utility to cope with fiscal emergencies, such as revenue shortfalls, asset failure, and natural disasters, among other events. Reserve policies provide guidelines for sound financial management, with an overall long-range perspective to maintain financial solvency and mitigate financial risks associated with revenue instability, volatile capital costs, and unexpected emergencies.
- NBS along with City staff have chosen to set the following reserve targets:
    - **Operating Reserve** set equal to 90 days of operating and maintenance expenses, or approximately $1.9 million in FY 2023/24. An operating reserve is intended to promote financial viability in the event of any short-term fluctuation in revenues and/or expenditures, such as those caused by weather patterns, the natural inflow and outflow of cash during billing cycles, natural variability in demand-based revenue streams (e.g., volumetric charges), and - particularly in periods of economic distress - changes or trends in the age of receivables.
    - **Capital Rehabilitation & Replacement Reserve**, at a minimum, should equal 3% of net capital assets, or approximately $1.9 million in FY 2023/24. This reserve is intended to be a cash resource set aside to address long-term capital system replacement and rehabilitation needs.
- **Funding Capital Improvement Projects**: The City must also be able to fund necessary capital improvements in order to maintain current service levels. City staff has identified roughly $20.2 million in expected capital expenditures for the next five years (FY 2023/24 through FY 2027/28) which is an average of $4 million in capital expenditures annually. Beyond FY 2027/28, an average of $4 million in capital expenditures is expected annually (future year value). With the recommended rate increases, these capital expenditures can be funded without draining existing reserves.
- **Inflation and Growth Projections:** Assumptions regarding cost inflation were made in order to project future revenues and expenses for the study period. Customer growth is expected to be nearly 1.80% annually. This factor was used in the analysis for some revenues and expenses, and all other inflation factors are based on the Consumer Price Index for all urban consumers in the San Francisco area.[9]
- **Impact of Annual Rate Adjustment Date:** The financial plan assumes that rate adjustments occur in January of each year. This means that only about half of the planned revenue to be collected from the rate adjustment listed for one fiscal year will be collected in that year. However, the rated adjustment in Year 1 is scheduled to occur in April 2024 which means that

[9] Website: *https://www.bls.gov/cpi/.*

the 9.0% increase in rate revenue planned will result in rates that recover $10.3 million. In other words, due to the timing of when the rates will go into effect, the financial plan results in only $9.4 million in rate revenue that will be collected for FY 2023/24 due to the end of year implementation.

- **Figure 2** summarizes the sources and uses of funds, net revenue requirements, and the annual percentage adjustments in total rate revenue recommended for the next 5 years.

Figure 2. Summary of Water Revenue Requirements

Summary of Sources and Uses of Funds and Net Revenue Requirements	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Sources of Water Funds							
Rate Revenue Under Prevailing Rates	$ 8,410,172	$ 8,544,184	$ 9,441,640	$ 9,611,590	$ 9,774,987	$ 9,941,161	$10,110,161
Non-Rate Revenues	664,001	448,314	473,600	482,125	490,321	498,656	507,134
Interest Earnings	(212,625)	215,995	275,008	87,285	61,319	56,589	58,325
Total Sources of Funds	**$ 8,861,548**	**$ 9,208,492**	**$10,190,248**	**$10,180,999**	**$10,326,626**	**$10,496,407**	**$10,675,619**
Uses of Water Funds							
560 - Water Treatment Plant	$ 1,483,133	$ 1,788,187	$ 2,088,189	$ 3,357,121	$ 2,228,382	$ 2,302,054	$ 2,378,221
565 - Water Distribution	991,284	1,013,187	1,536,149	1,586,987	1,639,520	1,693,803	1,749,895
50 - Public Works	1,356,080	1,616,039	366,768	378,613	390,854	403,506	416,582
Water Purchases	3,380,850	4,035,407	3,602,218	3,674,262	3,747,748	3,822,703	3,899,157
Non-Operating Expenses	1,263,894	1,798,674	2,206,123	2,207,963	2,171,674	2,237,313	2,304,938
Debt Service	523,735	744,109	820,140	823,637	1,468,278	2,523,408	3,014,261
Rate-Funded Capital Expenses	251,795	2,790,541	4,566,877	1,523,075	1,565,040	754,328	665,707
Total Use of Funds	**$ 9,250,771**	**$13,786,145**	**$15,186,464**	**$13,551,658**	**$13,211,497**	**$13,737,114**	**$14,428,761**
Surplus (Deficiency) before Rate Increase	**$ (389,223)**	**$ (4,577,653)**	**$ (4,996,216)**	**$ (3,370,659)**	**$ (2,884,870)**	**$ (3,240,707)**	**$ (3,753,142)**
Additional Revenue from Rate Increases[1]	-	-	212,437	1,336,492	2,361,290	3,190,413	3,710,759
Surplus (Deficiency) after Rate Increase	**$ (389,223)**	**$ (4,577,653)**	**$ (4,783,779)**	**$ (2,034,168)**	**$ (523,580)**	**$ (50,295)**	**$ (42,383)**
Projected Annual Rate Increase	***0.00%***	***0.00%***	***9.00%***	***9.00%***	***9.00%***	***4.00%***	***3.00%***
Cumulative Rate Increases	*0.00%*	*0.00%*	*9.00%*	*18.81%*	*29.50%*	*34.68%*	*38.72%*
Net Revenue Requirement[2]	**$ 8,799,395**	**$13,121,837**	**$14,393,795**	**$12,938,188**	**$12,610,375**	**$13,132,387**	**$13,813,821**

1. Assumes new rates are implemented April 1, 2024.
2. Total use of funds less non-rate revenues and interest earnings.

Figure 3 summarizes the projected reserve fund balances and reserve targets for the City's unrestricted funds. A detailed version of the proposed 5-year financial plan is included in *Appendix A*. The tables in the appendix include the revenue requirement, reserve funds, revenue sources, proposed rate adjustments, capital improvement program, and the proposed rate adjustments needed to meet City's funding requirements.

Figure 3. Summary of Primary Water Reserve Funds

Beginning Reserve Fund Balances and Recommended Reserve Targets	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Operating Reserve							
Ending Balance	$ 3,245,347	$ 5,727,496	$ 4,142,536	$ 2,278,487	$ 1,930,446	$ 2,055,691	$ 2,188,848
Recommended Minimum Target	*1,803,000*	*2,113,000*	*1,898,000*	*2,249,000*	*2,002,000*	*2,056,000*	*2,111,000*
Capital Rehabilitation & Replacement Reserve							
Ending Balance	$ 35,571	$ 3,488,438	$ 2,118,478	$ 2,079,900	$ 2,079,900	$ 2,079,900	$ 2,079,900
Recommended Minimum Target	*1,420,700*	*1,548,600*	*1,870,900*	*2,079,900*	*2,260,500*	*2,370,700*	*2,458,100*
Total Ending Balance	**$ 3,280,918**	**$ 9,215,935**	**$ 6,261,013**	**$ 4,358,387**	**$ 4,010,346**	**$ 4,135,591**	**$ 4,268,748**
Total Recommended Minimum Target	***$ 3,223,700***	***$ 3,661,600***	***$ 3,768,900***	***$ 4,328,900***	***$ 4,262,500***	***$ 4,426,700***	***$ 4,569,100***

2.3 Cost-of-Service Analysis

Once the net revenue requirements are determined, the cost-of-service analysis (COSA) proportionately distributes the revenue requirements to each of the customer classes. The COSA consists of two major

components: (1) the classification of expenses, and (2) the allocation of costs to each customer class. Costs are classified corresponding to the function they serve. All costs in the City's budget are allocated to each component of the rate structure in proportion to the level of service required by customers. The level of service is related to the volume and strength of the water treated, infrastructure capacity, and customer service. These costs are based on allocation factors, such as water consumption, number of meters, and customer class. Ultimately, a COSA is intended to result in rates that are proportional to the cost of providing service to each customer class.

FUNCTIONALIZATION AND CLASSIFICATION OF COSTS

Most costs are not typically allocated just to fixed or variable categories but allocated to multiple functions of water service. The functionalization and classification process provides the basis for allocating costs to various customer classes based on the cost causation (classification) components described below:

- **Commodity related costs** are costs associated with the change in the volume of water produced and delivered. These commonly include the costs of water quality testing, energy related to pumping for transmission and distribution, and source of supply.
- **Capacity related costs** are costs associated with sizing facilities to meet the maximum, or peak, demand. This includes both operating costs and capital infrastructure costs incurred to accommodate peak system capacity events.
- **Customer related costs** are costs associated with having a customer connected to the water system, such as meter reading, postage, billing, and other administrative duties.
- **Recycled Water related costs** are costs associated with the collection, treatment, and delivery of recycled water. Recycled water customers have separate fixed and volumetric rates which are discussed further in Section 3.
- **Fire Protection related costs** are costs associated with providing sufficient capacity in the system for fire meters and other operating and maintenance costs of providing water to properties for private fire service protection.

The City's budgeted costs were reviewed and allocated to these cost causation components which are used as the basis for establishing new water rates and translated to fixed and variable charges. Tables in the *Appendices* show how the City's expenses were classified and allocated to these cost causation components. In the analysis, these cost causation components are also considered to be either fixed or variable.

FIXED AND VARIABLE COSTS

Ideally, utilities should recover all of their fixed costs from fixed charges and all of their variable costs from volumetric rates. When this is the case, fluctuations in water sales revenues would be directly offset by reductions or increases in variable expenses. When rates are set in this manner, they provide greater revenue stability for the utility. However, other factors are often considered when designing water rates, such as community values, water conservation goals, ease of understanding, and ease of administration.[10]

[10] *Principles of Water Rates, Fees, and Charges,* Manual of Water Supply Practices, Manual M1, AWWA, 7th Edition, 2017, pp. 6 and 96.

NBS functionalized the City's costs into categories that can be more generally grouped into fixed and variable costs. This analysis resulted in a cost distribution that is approximately 56% fixed and 44% variable (i.e., volumetric or source specific). However, the City has decided on a rate structure that collects 40% of the net revenue requirement from fixed charges and 60% from volumetric rates. This rate structure will provide financial stability for the City, while maintaining a tiered rate structure that encourages water conservation. The proposed new rates are based on these allocations.

Figure 4 summarizes how costs are allocated to each cost component and used to establish new water rates. **Figure 5** shows the resulting cost allocation to each cost classification component. The remaining revenue requirements are allocated to capacity, customer, and fire protection cost categories.

Figure 4. Allocation Percentages of Revenue Requirements

Classification Components	PROPOSED ALTERNATIVE Cost-of-Service Net Revenue Requirements *(FY 2023/24)*	
Commodity-Related Costs	$ 6,174,833	*60.0%*
Capacity-Related Costs	3,709,181	*36.0%*
Customer-Related Costs	300,640	*2.9%*
Fire Protection-Related Costs	106,734	*1.0%*
Net Revenue Requirement	**$ 10,291,388**	*100.0%*

Figure 5. Allocated Net Revenue Requirements

Customer Classes	Classification Components				Cost of Service Net Rev. Req'ts	% of COS Net Revenue Req'ts
	VARIABLE	*FIXED*				
	Commodity-Related Costs	Capacity-Related Costs	Customer-Related Costs	Fire Protection-Related Costs		
Residential	$ 3,092,204	$ 1,565,159	$ 214,963	$ -	$ 4,872,326	*47.3%*
Multi-Family	546,290	1,777,034	56,075	-	2,379,400	*23.1%*
Commercial	1,943,118	221,463	15,109	-	2,179,689	*21.2%*
Landscape	323,989	38,794	3,216	-	365,999	*3.6%*
Private Fire Protection	139,154	77,779	10,792	106,734	334,458	*3.2%*
Temporary Hydrant Meters	50,606	16,254	352		67,213	*0.7%*
Raw Water	79,472	12,699	132	-	92,303	*0.9%*
Total Net Revenue Requirement	**$ 6,174,833**	**$ 3,709,181**	**$ 300,640**	**$ 106,734**	**$ 10,291,388**	**100%**

2.4 Characteristics of Water Customers by Customer Class

Customer classes are typically determined by grouping customers with similar demand characteristics into categories that reflect the cost differentials to serve each type of customer. Customer classes are most often identified as single family, multi-family, commercial, landscape, etc., and the City follows this common methodology. The rates proposed in this report follow a similar structure where the fixed charges within each customer class vary by meter size. Variable rates are tiered (two tiers) for single family residential (SFR); all other customers are charged a uniform volumetric rate.

The amount of consumption, the peaking factors, and the number of meters by size are used to allocate costs as a part of COSA to allocate costs to customer classes and determine the appropriate rate structures for each. These components of the COSA are presented in the following figures.

Commodity related costs are costs associated with the total annual consumption of water by customer class. **Figure 6** below summarizes the most recent consumption data by customer class and represents the expected percent of consumption over the 5-year rate period.

Figure 6. Water Consumption by Customer Class

Customer Class	FY 2021/22 Consumption (hcf)	% Adjustment for Conservation[2]	Est. FY 2021/22 Volume Adjusted for Conservation	FY 2021/22 % of Total Volume
Residential	507,339	20.0%	405,871	**50.1%**
Multi-Family	89,630	20.0%	71,704	**8.8%**
Commercial	318,808	20.0%	255,046	**31.5%**
Landscape	53,157	20.0%	42,526	**5.2%**
Private Fire Protection	22,831	20.0%	18,265	**2.3%**
Temporary Hydrant Meters	8,303	20.0%	6,642	**0.8%**
Raw Water	13,039	20.0%	10,431	**1.3%**
Total	**1,013,107**		**810,486**	**100%**

1. Consumption data is based on the City of American Canyon's billing data.
2. A conservation factor of 20% included in table above based on the "20 by 2020" law passed in 2009. Source: *https://www.ca-ilg.org* .

Figure 7 shows the capacity allocation factors for each customer class.

Figure 7. Capacity Factors by Customer Class

Customer Class	Meter Size[1]	No. of Meters	Hydraulic Capacity Factors[2]	Total Equivalent Meters	% of EDUs
Residential		**4,880**		**4,930**	**42.2%**
	< 1" meter	1,986	*1.00*	1,986	
	1" meter	2,875	*1.00*	2,875	
	1 1/2" meter	7	*2.00*	14	
	2" meter	9	*3.20*	29	
	3" meter	1	*6.40*	6	
	4" meter	2	*10.00*	20	
Multi-Family		**556**		**5,598**	**47.9%**
	1 1/2" meter	20	*2.00*	40	
	2" meter	201	*3.20*	643	
	3" meter	96	*6.40*	614	
	4" meter	48	*10.00*	480	
	6" meter	191	*20.00*	3,820	
Commercial		**343**		**698**	**6.0%**
	< 1" meter	102	*1.00*	102	
	1" meter	88	*1.00*	88	
	1 1/2" meter	54	*2.00*	108	
	2" meter	81	*3.20*	259	
	3" meter	11	*6.40*	70	
	4" meter	7	*10.00*	70	
Landscape		**73**		**122**	**1.0%**
	< 1" meter	13	*1.00*	13	
	1" meter	30	*1.00*	30	
	1 1/2" meter	14	*2.00*	28	
	2" meter	16	*3.20*	51	
Private Fire Protection		**245**		**245**	**2.1%**
	< 1" meter	245	*1.00*	245	
Temporary Hydrant Meters		**8**		**51**	**0.4%**
	3" meter	8	*6.40*	51	
Raw Water		**3**		**40**	**0.3%**
	4" meter	2	*10.00*	20	
	6" meter	1	*20.00*	20	
Total		**6,108**		**11,684**	**100%**

1. Meter by class and size are based on June 2022 customer billing data.
2. Source: *Principles of Water Rates, Fees, and Charges* , Manual M1, AWWA, Table B-1.

Figure 8 shows the number of meters for each customer class. The percentage of total customers by customer class is then used to develop the customer allocation factors in order to allocate customer costs. Customer costs are those costs associated with having customers connected to the water system and include costs related to meter reading, postage, and billing.

Figure 8. Number of Meters by Customer Class

Customer Class	No. of Meters/Accounts FY 2021/22[1]	% of Total Meters
Residential	4,880	71.5%
Multi-Family[2]	1,273	18.7%
Commercial	343	5.0%
Landscape	73	1.1%
Private Fire Protection	245	3.6%
Temporary Hydrant Meters	8	0.1%
Raw Water	3	0.0%
Total	**6,825**	**100.0%**

1. Meter count data is based on the City's billing data for June 2022.
2. Multi-family residential customers are by dwelling units.

2.5 Rate Design Analysis

The process of evaluating the water rate structure provides the opportunity to review and incorporate rate-design objectives and policies, including revenue stability, equity among customers, and water conservation. NBS discussed several water rate alternatives and methodologies with City Staff over the course of this study, such as the percentage of revenue collected from fixed charges vs. variable rates and differentiating rates by customer class. Ultimately, City staff selected a rate alternative that is similar to the results of the COSA that includes a fixed service charge based on customer class and meter size. The following sections describe this process. The selected rate structure also maintains the existing two tiers for single family residential customers and proposes a uniform tier for all other customer classes.

The following sections describe how the proposed water rates were developed.

DEVELOPMENT OF PROPOSED RATES

Fixed Service Charges

The fixed meter charge recognizes that the water utility incurs fixed costs regardless of whether customers actually use water. There are two components that comprise the fixed meter charge: (1) the customer component, and (2) the capacity component. The customer components are those costs related to reading and maintaining meters, customer billing and collection, and other customer service-related costs. The capacity component recovers costs associated with sizing the water system to ensure there is sufficient capacity in the system to meet peak demand. A user class with higher peaking (capacity) needs is allocated a proportionately higher share of the capacity related costs compared to customer classes with lower peaking needs.

Meter sizes have different fixed charges based on their capacity requirements, where larger meters have the potential to use more of the system's capacity[11] or, said differently, they can have higher peaking factors compared to smaller meters. The potential capacity demanded (peaking) is proportional to the maximum hydraulic flow through each meter size based on the hydraulic capacity ratios established by AWWA.[12] The AWWA capacity ratios used for this report are shown in **Figure 9**.

Figure 9. Hydraulic Capacity Factors

Meter Size	Standard Meters	
	Meter Capacity (gpm)[1]	Equivalency to 1 inch
	Displacement Meters	
5/8 inch	20	1.00
3/4 inch	30	1.00
1 inch	50	1.00
1 1/2 inch	100	2.00
2 inch	160	3.20
	Compound Class I Meters	
3 inch	320	6.40
4 inch	500	10.00
6 inch	1,000	20.00
8 inch	1,600	32.00
	Turbine Class II Meters	
10 inch	4,200	84.00
12 inch	5,300	106.00

1. Per AWWA, M1 Manual, Table B-1.

The actual number of meters by size is multiplied by the corresponding capacity ratios to calculate equivalent meters. The number of equivalent meters is used as a proxy for the potential demand that each customer can place on the water system. **Figure 10** summarizes the number of meters, the hydraulic capacity factors, and the number of equivalent meters (i.e., the number of meters multiplied by the hydraulic capacity factor) by customer class and meter size.

Figure 10. Equivalent Meters

Number of Meters by Class and Size[1]	FY 2023/24								Total
	< 1" meter	1" meter	1 1/2" meter	2" meter	3" meter	4" meter	6" meter	8" meter	
Residential	1,986	2,875	7	9	1	2	0	0	4,880
Multi-Family	0	0	20	201	96	48	191	0	556
Commercial	13	30	14	16	0	0	0	0	73
Commercial	102	88	54	81	11	7	0	0	343
Private Fire Protection	245	0	0	0	0	0	0	0	245
Temporary Hydrant Meters	0	0	0	0	8	0	0	0	8
Raw Water	0	0	0	0	0	2	1	0	3
Total Meters/Accounts	**2,346**	**2,993**	**95**	**307**	**116**	**59**	**192**	**0**	**6,108**
Hydraulic Capacity Factor[2]	*1.00*	*1.00*	*2.00*	*3.20*	*6.40*	*10.00*	*20.00*	*32.00*	
Total Equivalent Meters	**2,346**	**2,993**	**190**	**982**	**742**	**590**	**3,840**	**0**	**11,684**

1. Meter by Class and Size are based on June 2022 customer billing data.
2. Source: *Principles of Water Rates, Fees, and Charges* , Manual M1, AWWA, Table B-1.

Using the costs allocated to each customer class from Figure 5, **Figure 11** shows the calculation of the fixed monthly service charges for all customer classes based on meter size. As previously mentioned, the customer service charge is calculated by dividing the customer service-related costs by the total number of

[11] System capacity is the system's ability to supply water to all delivery points at the time when demanded.

[12] *Principles of Water Rates, Fees and Charges*, Manual of Water Supply Practices, Manual M1, AWWA, 7th Edition, 2017, p. 386. *Water Meters – Selection, Installation, Testing and Maintenance*, Manual M6, AWWA, 5th Edition, 2012, pp. 63-65.

meters, whereas the fixed capacity charge is calculated by dividing the capacity-related costs by the total number of equivalent meters for each meter size.

Figure 11. Calculation of Fixed Service Charges (Residential)

Number of Meters by Class and Size	FY 2023/24								Total
	< 1" meter	1" meter	1 1/2"	2" meter	3" meter	4" meter	6" meter	8" meter	
Monthly Fixed Service Charges									
Customer Costs ($/Acct/month)	$4.10	$4.10	$4.10	$4.10	$4.10	$4.10	$4.10	$4.10	
Capacity Costs ($/Acct/month)	$27.22	$27.22	$54.43	$87.09	$174.19	$272.17	$544.33	$870.93	
Total Monthly Meter Charge	**$31.32**	**$31.32**	**$58.53**	**$91.19**	**$178.29**	**$276.27**	**$548.43**	**$875.03**	
Annual Fixed Costs Allocated to Monthly Meter Charges									
Customer Costs	$ 300,640								
Capacity Costs	3,815,915								
Total Fixed Meter Costs	$4,116,555								
Annual Revenue from Monthly Meter Charges									
Customer Charges	$ 115,491	$ 147,298	$ 4,676	$ 15,111	$ 5,710	$ 2,904	$ 9,450	$ -	**$ 300,640**
Capacity Charges	$ 766,330	$ 977,381	$ 62,054	$ 320,851	$ 242,467	$ 192,693	$1,254,139	$ -	**$3,815,915**
Total Revenue from Monthly Meter Charges	**$ 881,821**	**$1,124,680**	**$ 66,730**	**$ 335,961**	**$ 248,177**	**$ 195,597**	**$1,263,590**	**$ -**	**$4,116,555**

Volumetric Rates

Currently, the City uses a 2-tier rate structure for residential customers (i.e., single family customers), while all other customers are charged a uniform, or single tier, volumetric rate. The following sections of this report describe how the tiered rates were developed.

Source of Supply

The City has three primary sources of supply: (1) State Water Project (SWP); (2) Cities of Napa and Vallejo treated water; and (3) City of Vallejo raw water. **Figure 12** shows how these supply sources are allocated to each tier. A description of how this allocation was developed is included in *Appendix A*.

Figure 12. Summary of Supply Sources Allocated to Tiers

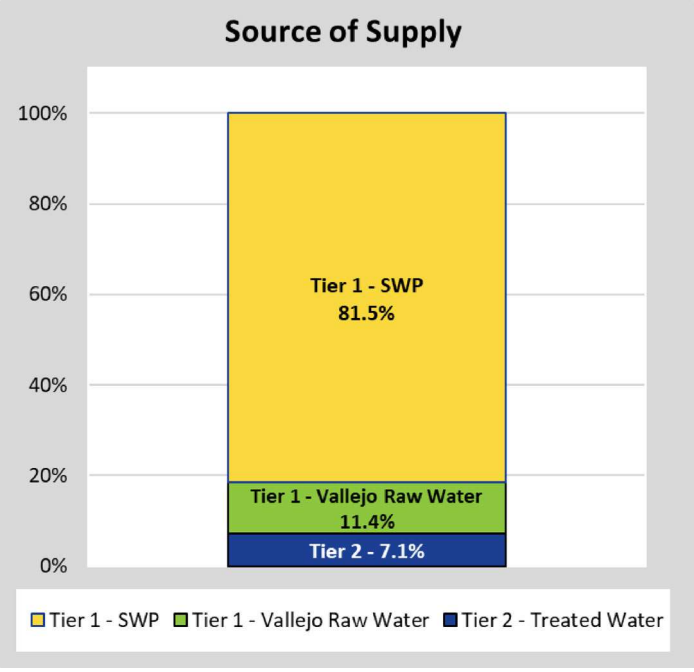


Figure 13 shows the amount of each source of supply that is included in the tiers for residential customers.

Figure 13. Allocated Consumption from Each Source of Supply

Source of Supply	Total Contracted Purchases		Acre Feet as a % of Total
	In AF	In HCF	
SWP (Contracted Purchase)	3,590	1,563,804	81.5%
Vallejo Raw Water (Contracted Purchase)	500	217,800	11.4%
Treated Water (Contracted Purchase)[1]	313	136,181	7.1%
Totals	**4,403**	**1,917,785**	**100.0%**

Residential Tiered Rates

Before the tiered rates could be developed, expected consumption in each tier was determined, and tier breakpoints were established. The breakpoint for Tier 1 was set so that expected consumption within each tier would most closely match the allocated consumption by that source. That is, the amount of expected consumption in Tier 1 would correspond to the amount of water that the SWP and the City of Vallejo (raw water) could supply. Similarly, expected consumption in Tier 2 corresponds to the amount of treated water supply from the cities of Napa and Vallejo.

For residential customers, the tier breakpoints were identified by first determining the quantity available in each tier (see Figure 13). Once the quantity of water by tier is determined, individual customer billing records are analyzed to determine what tier breakpoint would maximize the use of water in each tier. The resulting breakpoint was determined to be the 6 HCF as shown in **Figure 14**. The amount of estimated consumption in Tier 1 differs slightly from the allocated consumption due to the fact that monthly reads for all customers are not precise.

Figure 14. Tier Breakpoints for Residential Customers

Residential Tiers	Consumption	% of Consumption	Avg. Monthly Consumption FY 2020/21 (hcf)	Tier Breakpoint (hcf)
Tier 1 - SWP & Vallejo Raw Water	322,836	79.5%		6.00
Tier 2 - Treated Water (Napa & Vallejo)	83,035	20.5%		
Total	**405,871**	**100.0%**	7.0	

Once the expected consumption by tier was determined, the expenses assigned to commodity-related costs, previously shown in Figure 4, were spread over the expected consumption resulting in the rates shown in **Figure 15.**

Figure 15. Tiered Rates for FY 2023/24

Source of Supply	Supply Costs Allocated to Residential Tiered Rates	Source of Supply Costs	Other Costs Allocated to Vol. Rates	Total Costs Allocated	FY 2020/21 Consumption	Residential Rates ($/HCF)
Residential Tiered Rate Costs	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	(6)
Tier 1 - SWP & Vallejo Raw Water	79.5%	$ 565,431	$ 1,716,250	$ 2,281,681	322,836	**$7.07**
Tier 2 - Treated Water (Napa & Vallejo)	20.5%	369,096	441,426	810,523	83,035	**$9.76**
Total Residential Tiered Rate Costs	**100.0%**	**$ 934,527**	**$ 2,157,676**	**$ 3,092,204**	**405,871**	

Uniform Rates

Expected consumption in the uniform tier accounts for the remaining amount of supply from all three water sources. **Figure 16** identifies the uniform tier rate per unit of water for all non-residential customers.

Figure 16. Uniform Tier Rates for FY 2023/24

Customer Classes	Number of Meters[1]	Water Consumption (hcf/yr)[2]	Total Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates ($/hcf)	*Proposed Rate Structure*
Residential	4,880	405,871	$ 3,092,204	*30.0%*	*n/a*	*2 Tiers*
Multi-Family	1,273	71,704	546,290	*5.3%*	$7.619	*Uniform*
Commercial	343	255,046	1,943,118	*18.9%*	$7.619	*Uniform*
Landscape	73	42,526	323,989	*3.1%*	$7.619	*Uniform*
Private Fire Protection	245	18,265	139,154	*1.4%*	$7.619	*Uniform*
Temporary Hydrant Meters	8	6,642	50,606	*0.5%*	$7.619	*Uniform*
Raw Water	3	10,431	79,472	*0.8%*	$7.619	*Uniform*
Total Potable Water	**6,825**	**810,486**	**$ 6,174,833**	***60%***		

1. Consumption data is based on the City of American Canyon's billing data.
2. Water consumption is actual consumption for FY 2021/22 and includes an adjustment of 20% for conservation. See Table 28.

The rate for each unit of water is determined by dividing costs to recover, or total target revenue requirements, per tier by the estimated consumption. The tiered rates per HCF are identified as follows:

- ***Residential Tier 1*** is equal to the costs for water from the SWP and the raw water from the City of Vallejo.
- ***Residential Tier 2*** is equal to the treated water costs for the cities of Napa and Vallejo.
- ***Uniform Tier*** is equal to all remaining water supply costs not allocated to residential customers from SWP and the cities of Napa and Vallejo.

In addition to developing the uniform volumetric rates shown in Figure 16, the City Council requested an alternative analysis that was based on the City's current volumetric water rate increased by three percent a year, with the fixed charges remaining as proposed. This analysis compared the revenue generated from the cost of service volumetric rates with the rates generated using three percent escalation. **Figure 17** compares the revenue generation from the two approaches.

Figure 17. Variable Revenue Comparison

ALTERNATIVE 1 (COSA)					
Customer Class	**COSA Revenue**				
	FY 2023/24	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**
Residential					
Tier 1 - SWP & Vallejo Raw Water	$ 2,459,588	$ 2,487,033	$ 2,710,866	$ 2,819,300	$ 2,903,879
Tier 2 - Treated Water (Napa & Vallejo)	632,616	883,470	962,982	1,001,501	1,031,546
Multi-Family	546,290	595,456	649,047	675,009	695,259
Commercial	1,943,118	2,117,998	2,308,618	2,400,963	2,472,992
Landscape	323,989	353,148	384,931	400,329	412,339
Private Fire Protection	139,154	151,678	165,329	171,942	177,100
Temporary Hydrant Meters	50,606	55,161	60,125	62,530	64,406
Raw Water	79,472	86,624	94,421	98,198	101,143
Total	**$ 6,174,833**	**$ 6,730,567**	**$ 7,336,319**	**$ 7,629,771**	**$ 7,858,664**
ALTERNATIVE 2 - INCREASE CURRENT VARIABLE RATES BY 3% ANNUALLY					
Customer Class	**COSA Revenue**				
	FY 2023/24	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**
Residential					
Tier 1 - SWP & Vallejo Raw Water	$ 2,507,212	$ 2,582,428	$ 2,659,901	$ 2,739,698	$ 2,821,889
Tier 2 - Treated Water (Napa & Vallejo)	697,036	717,947	739,485	761,670	784,520
Multi-Family	570,162	587,266	604,884	623,031	641,722
Commercial	2,028,027	2,088,868	2,151,534	2,216,080	2,282,562
Landscape	338,147	348,291	358,740	369,502	380,587
Private Fire Protection	72,617	74,796	77,040	79,351	81,731
Temporary Hydrant Meters	52,818	54,402	56,034	57,715	59,447
Raw Water	36,960	38,069	39,211	40,387	41,599
Total	**$ 6,302,977**	**$ 6,492,067**	**$ 6,686,829**	**$ 6,887,434**	**$ 7,094,057**
Difference	**$ (128,145)**	**$ 238,501**	**$ 649,490**	**$ 742,338**	**$ 764,608**

2.6 Proposed Water Rates

Currently, all customers are subject to a fixed service charge that varies by meter size and volumetric rates based on consumption for the various customer classes. The cost-of-service analysis (COSA) by nature "re-balances" how costs are allocated between customer classes and, as a result, there are uneven adjustments in the first year of the 5-year rate adoption period. In contrast, in the subsequent four years of the rate planning period, proposed charges are simply adjusted by the proposed adjustment in total rate revenue needed to meet projected revenue requirements.

The following figures provide a comparison of the current and proposed water rates for FY 2023/24 through 2027/28 for each customer class and meter size. Projected rates for FY 2023/24[13] reflect adjustments based on the COSA. More detailed tables on the development of the proposed water rates are documented in *Appendix A*.

[13] All rate adjustments are scheduled to be effective on January 1st except Year 1 which will be implemented on April 1, 2024.

Figure 18. Current and Proposed Water Rates - Fixed Charges

Water Rate Schedule	Current Rates	Proposed Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Monthly Fixed Service Charges (in $/mo)						
Residential Use						
< 1" meter	$26.56	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter	$26.56	$31.32	$34.14	$37.21	$38.70	$39.86
1 1/2" meter	$26.56	$58.53	$63.80	$69.55	$72.33	$74.50
2" meter	$26.56	$91.19	$99.40	$108.35	$112.68	$116.06
3" meter	$26.56	$178.29	$194.33	$211.82	$220.30	$226.91
4" meter	$26.56	$276.27	$301.13	$328.23	$341.36	$351.60
6" meter	$26.56	$548.43	$597.79	$651.59	$677.66	$697.99
8" meter	$26.56	$875.03	$953.78	$1,039.63	$1,081.21	$1,113.65
Multi-Family, Commercial and Landscape						
< 1" meter	$26.56	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter (Residential)	$26.56	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter (Commercial)	$44.42	$31.32	$34.14	$37.21	$38.70	$39.86
1 1/2" meter	$88.75	$58.53	$63.80	$69.55	$72.33	$74.50
2" meter	$141.99	$91.19	$99.40	$108.35	$112.68	$116.06
3" meter	$283.98	$178.29	$194.33	$211.82	$220.30	$226.91
4" meter	$443.74	$276.27	$301.13	$328.23	$341.36	$351.60
6" meter	$887.48	$548.43	$597.79	$651.59	$677.66	$697.99
8" meter	$1,420.06	$875.03	$953.78	$1,039.63	$1,081.21	$1,113.65
Private Fire Protection						
< 1" meter	$13.28	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter	$13.28	$31.32	$34.14	$37.21	$38.70	$39.86
1 1/2" meter	$13.28	$58.53	$63.80	$69.55	$72.33	$74.50
2" meter	$13.28	$91.19	$99.40	$108.35	$112.68	$116.06
3" meter	$13.28	$178.29	$194.33	$211.82	$220.30	$226.91
4" meter	$13.28	$276.27	$301.13	$328.23	$341.36	$351.60
6" meter	$13.28	$548.43	$597.79	$651.59	$677.66	$697.99
8" meter	$13.28	$875.03	$953.78	$1,039.63	$1,081.21	$1,113.65
Temporary Hydrant Meters						
< 1" meter	$283.98	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter	$283.98	$31.32	$34.14	$37.21	$38.70	$39.86
1 1/2" meter	$283.98	$58.53	$63.80	$69.55	$72.33	$74.50
2" meter	$283.98	$91.19	$99.40	$108.35	$112.68	$116.06
3" meter	$283.98	$178.29	$194.33	$211.82	$220.30	$226.91
4" meter	$283.98	$276.27	$301.13	$328.23	$341.36	$351.60
6" meter	$283.98	$548.43	$597.79	$651.59	$677.66	$697.99
8" meter	$283.98	$875.03	$953.78	$1,039.63	$1,081.21	$1,113.65
Raw Water						
< 1" meter	*n/a*	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter	$44.42	$31.32	$34.14	$37.21	$38.70	$39.86
1 1/2" meter	*n/a*	$58.53	$63.80	$69.55	$72.33	$74.50
2" meter	$141.99	$91.19	$99.40	$108.35	$112.68	$116.06
3" meter	*n/a*	$178.29	$194.33	$211.82	$220.30	$226.91
4" meter	$443.74	$276.27	$301.13	$328.23	$341.36	$351.60
6" meter	$887.48	$548.43	$597.79	$651.59	$677.66	$697.99
8" meter	*n/a*	$875.03	$953.78	$1,039.63	$1,081.21	$1,113.65

Figure 19. Current and Proposed Water Rates - Variable Rates (COSA)

Water Rate Schedule	Current Rates	Proposed Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Variable Rates for All Water Consumed (in $/hcf)						
Residential Use						
Tier 1 (0 - 6 units)	$7.54	$7.07	$7.70	$8.40	$8.73	$8.99
Tier 2 (> 6 units)	$8.15	$9.76	$10.64	$11.60	$12.06	$12.42
Multi-Family, Commercial and Landscape	$7.72	$7.62	$8.30	$9.05	$9.41	$9.70
Private Fire Protection	$3.86	$7.62	$8.30	$9.05	$9.41	$9.70
Temporary Hydrant Meters	$7.72	$7.62	$8.30	$9.05	$9.41	$9.70
Raw Water	$3.44	$7.62	$8.30	$9.05	$9.41	$9.70

Figure 20. Current and Proposed Water Rates - Variable Rates (Alternative 2)

Water Rate Schedule	Current Rates	Proposed Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Variable Rates for All Water Consumed (in $/hcf)						
Residential Use						
Tier 1 (0 - 6 units)	$7.54	$7.77	$8.00	$8.24	$8.49	$8.74
Tier 2 (> 6 units)	$8.15	$8.39	$8.65	$8.91	$9.17	$9.45
Multi-Family, Commercial and Landscape	$7.72	$7.95	$8.19	$8.44	$8.69	$8.95
Private Fire Protection	$3.86	$3.98	$4.10	$4.22	$4.34	$4.47
Temporary Hydrant Meters	$7.72	$7.95	$8.19	$8.44	$8.69	$8.95
Raw Water	$3.44	$3.54	$3.65	$3.76	$3.87	$3.99

2.7 Comparison of Current and Proposed Water Bills

Figure 21 and **Figure 22** compare a range of monthly water bills under the current and proposed water rates for residential and commercial customers. These monthly bills are based on typical meter sizes and highlight the average consumption levels for each customer.

Figure 21. Monthly Water Bill Comparison for Residential Customers

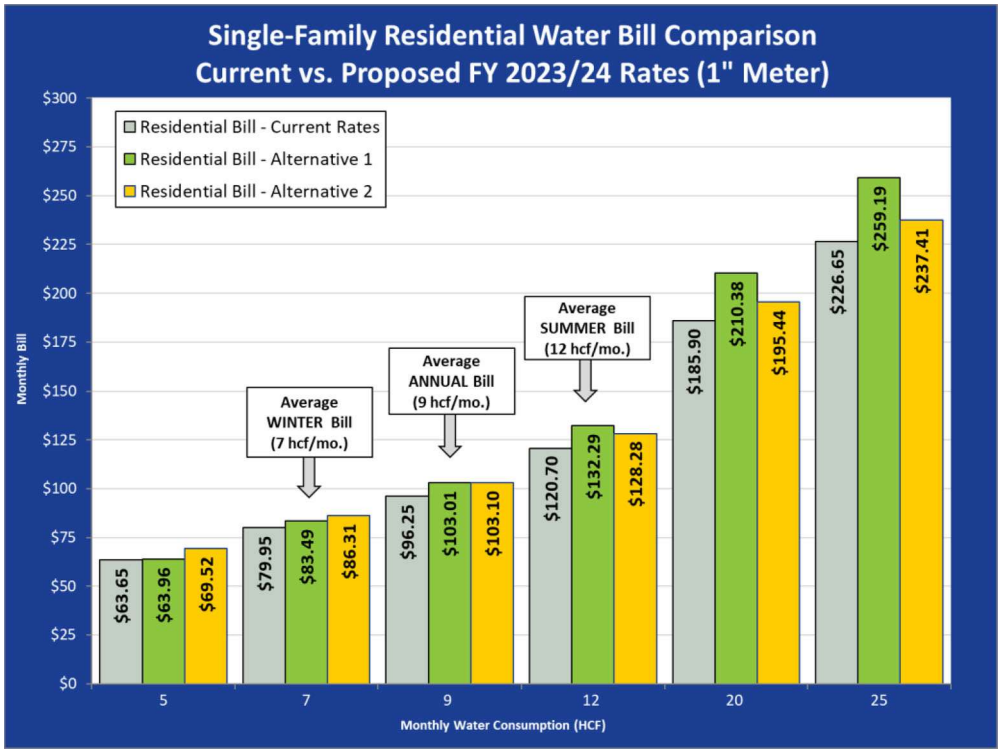
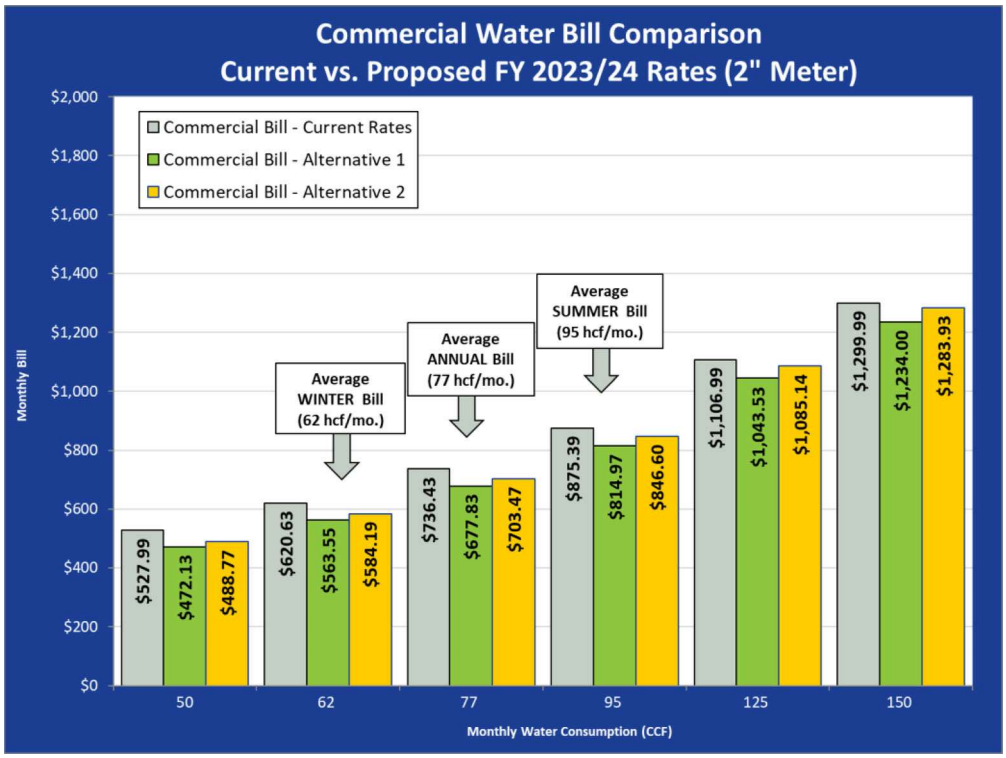


Figure 22. Monthly Water Bill Comparison for Commercial Customers



2.8 Drought Rates

The City is obligated to meet its annual net revenue requirements to keep the utility operating and functional regardless of whether consumption levels decline due to conservation or other unexpected events (e.g., unseasonal weather, natural disasters, etc.). At the request of the City, drought rates have been developed so that if total consumption should decrease further due to an increase in conservation required by the state, another regulatory agency, or if the City Council declares that it is in more severe drought stages, the City's water utility would still be kept whole, financially. In the event that consumption decreases beyond projected baseline consumption levels, some costs will also decrease, and the proposed drought rates have taken this reduced revenue need into consideration.[14]

Figure 23 shows the expenses directly impacted by conservation over the next five years. Because these expenses are a significant portion of the City's budget, drought rates will offset the loss of variable revenue, if needed and implemented by the City in different stages of drought severity.

Figure 23. Expenses Directly Impacted by Conservation

Description	Commodity-Related Costs				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
City of Napa	$ 278,000	$ 283,560	$ 289,231	$ 295,016	$ 300,916
North Bay Aqueduct	3,203,000	3,267,060	3,332,401	3,399,049	3,467,030
City of Vallejo	121,218	123,642	126,115	128,638	131,210
Total:	**$ 3,602,218**	**$ 3,674,262**	**$ 3,747,748**	**$ 3,822,703**	**$ 3,899,157**

[14] Details regarding the calculation of the drought rates can be found in *Appendix A*.

Figure 24 shows the calculation of the updated commodity costs for each percentage of conservation the City is looking to achieve with the drought rates for FY 2023/24. **Figure 25** presents the proposed drought surcharge that would replace the uniform volumetric rate (shown in Figures 19 and 20) at each stage of conservation through FY 2027/28.

The projected monthly revenues should be based on the FY 2020/21 monthly consumption levels adjusted for conservation and the volumetric rate. Key aspects of the drought rates include:

- The drought surcharge was developed using water usage for FY 2020/21, the same assumption used in the proposed volumetric rates.
- The City Council must activate the drought rate surcharge. If the surcharge is activated, it will remain in effect as necessary and will be reviewed by the City Council at a minimum of every six (6) months for determination of necessity until the surcharge is deactivated.
- The drought rate surcharge is added to the uniform volumetric rate on a per unit basis to cover the cost of water service during times of mandated conservation and/or extreme water supply shortage.

Figure 24. Projected Consumption at Baseline and Each Successive Drought Stage

2021/22 Consumption Assumptions[1]					
Shortage Level	Percent Shortage Range	Shortage Response Action	Potable Water Consumption (AF/yr.)	Potable Water Consumption (hcf/yr.)	Difference to Baseline (hcf)
Baseline Consumption[2]			**1,861**	**810,486**	**0**
1	Up to 10%	Voluntary Conservation	1,675	729,437	(81,049)
2	Up to 20%	Water Alert	1,488	648,388	(162,097)
3	Up to 30%	Water Emergency	1,302	567,340	(243,146)
4	Up to 40%	Critical Water Emergency	1,116	486,291	(324,194)
5	Up to 50%	Severe Water Emergency	930	405,243	(405,243)
6	>50%	Catastrophic Interruption of Water Supplies	744	324,194	(486,291)

1. Drought stages based on the City's Water Conservation Plan. Source files: *2._Redlines_Ordinance_Water_Conservation_Plan_Chapter_13.14 (4).pdf* & *3._Table_8-1_Water_Shortage_Contingency_Plan_Levels.pdf* .
2. This represents the baseline consumption for FY 2021/22 consumption (excludes recycled water). Conservation percentage for each drought stage is relative to the baseline consumption.

Figure 25. Proposed Drought Surcharges

Drought Rate Schedule *(in $/hcf)*	Current Rates	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
10% Conservation	*n/a*	$0.35	$0.44	$0.53	$0.58	$0.62
20% Conservation	*n/a*	$0.79	$0.98	$1.19	$1.30	$1.39
30% Conservation	*n/a*	$1.36	$1.68	$2.03	$2.23	$2.39
40% Conservation	*n/a*	$2.12	$2.61	$3.16	$3.46	$3.71
50% Conservation	*n/a*	$3.17	$3.92	$4.75	$5.20	$5.57
60% Conservation	*n/a*	$4.76	$5.88	$7.12	$7.79	$8.36

3. Recycled Water Rate Study

3.1 Key Recycled Water Rate Study Issues

Recycled water rates face a unique set of challenges in determining what rates should be charged. Regardless of actual system costs, rates cannot exceed what the "market" can bear, or else recycled water customers will likely use alternative sources. This has often resulted in setting these rates arbitrarily low so that they do not exceed the costs of alternative sources (or exceed potable prices). Actual costs are also unclear because typically wastewater customers often benefit from reclaimed water as it tends to reduce wastewater disposal costs.

The primary issues addressed in this study for the recycled water system were: (1) ensuring rates generate a reasonable level of revenue to pay for operating costs of the system, and (2) establishing reasonable rates that are competitive with other sources of irrigation water while ideally recovering basic operating costs. Currently, the City does not have separate fixed charges and volumetric rates for recycled water customers, so NBS worked with City staff to determine the appropriate cost allocations of sewer treatment and distribution costs that recycled water customers should pay. The following sections describe the results of this analysis.

3.2 Recycled Water Utility Revenue Requirements

A cost-of-service analysis was performed, and rates were designed to collect 80% of the rate revenue from variable rates and 20% from fixed rates. Recycled water connections represent about 1.1% of all the City's meters. **Figure 26** summarizes the sources and uses of funds, net revenue requirements, and the annual percentage adjustments in total rate revenue recommended for the next 5 years, and **Figure 27** summarizes the recycled water revenue requirements for FY 2023/24.

Figure 26. Summary of Recycled Water Revenue Requirements

Summary of Sources and Uses of Funds and Net Revenue Requirements	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Sources of Water Funds							
Rate Revenue Under Prevailing Rates	$ 151,038	$ 226,361	$ 207,000	$ 210,726	$ 214,308	$ 217,952	$ 221,657
Interest Earnings	4,101	12,392	22,343	2,195	7,873	4,912	2,640
Total Sources of Funds	**$ 155,140**	**$ 238,753**	**$ 229,343**	**$ 212,921**	**$ 222,182**	**$ 222,864**	**$ 224,297**
Uses of Water Funds							
Fund 580 - Recycled Water Operations	$ 272,644	$ 1,632,152	$ 893,163	$ 797,921	$ 823,477	$ 849,857	$ 877,086
Interfund Loan Repayment	-	-	198,566	198,566	267,497	267,497	267,497
Rate-Funded Capital Expenses	-	-	-	-	-	-	-
Total Use of Funds	**$ 272,644**	**$ 1,632,152**	**$ 1,091,728**	**$ 996,487**	**$ 1,090,974**	**$ 1,117,354**	**$ 1,144,583**
Surplus (Deficiency) before Rate Increase	**$ (117,504)**	**$ (1,393,399)**	**$ (862,386)**	**$ (783,566)**	**$ (868,793)**	**$ (894,490)**	**$ (920,286)**
Additional Revenue from Rate Increases[1]	-	-	129,375	563,692	652,033	728,149	788,637
Surplus (Deficiency) after Rate Increase	**$ (117,504)**	**$ (1,393,399)**	**$ (733,011)**	**$ (219,874)**	**$ (216,759)**	**$ (166,341)**	**$ (131,650)**
Projected Annual Rate Increase	***0.00%***	***0.00%***	***250.00%***	***10.00%***	***10.00%***	***5.00%***	***5.00%***
Cumulative Rate Increases	*0.00%*	*0.00%*	*250.00%*	*285.00%*	*323.50%*	*344.68%*	*366.91%*
Net Revenue Requirement[2]	**$ 268,543**	**$ 1,619,760**	**$ 1,069,386**	**$ 994,292**	**$ 1,083,101**	**$ 1,112,441**	**$ 1,141,943**

1. Assumes new rates are implemented April 1, 2024.
2. Total use of funds less interest earnings.

Figure 27. Summary of Recycled Water Revenue Requirements for FY 2023/24

Recycled Water Classification Components	Cost-of-Service Net Revenue Requirements *(2023/24)*	
Variable (Collected from Vol. Rates)	$ 855,509	*80%*
Fixed (Collected from Fixed Charges)	213,877	20%
Net Revenue Requirement	**$ 1,069,386**	*100%*

3.3 Proposed Recycled Water Rates

Fixed Charges

Fixed charges have been calculated in the same manner as potable water fixed charges. **Figure 28** shows the calculation of the monthly fixed meter charges. In total, the fixed and variable charges collect the target revenue from recycled water customers as shown previously in Figure 27.

Figure 28. Recycled Water Fixed Rate Calculation

Number of RW Meters by Class and Size[1]	FY 2023/24								Total
	< 1" meter	1" meter	1 1/2"	2" meter	3" meter	4" meter	6" meter	8" meter	
Recycled Water									
Recycled Water	2	13	14	28	13	6	0	0	76
Total Meters/Accounts	**2**	**13**	**14**	**28**	**13**	**6**	**0**	**0**	**76**
Hydraulic Capacity Factor[2]	*1.00*	*1.67*	*3.33*	*5.33*	*10.67*	*16.67*	*33.33*	*53.33*	
Total Equivalent Meters	**2**	**22**	**47**	**149**	**139**	**100**	**0**	**0**	**458**
Monthly Fixed Service Charges									
Fixed Charge ($/EM/month)[3]	$38.89	$38.89	$38.89	$38.89	$38.89	$38.89	$38.89	$38.89	
Fixed Monthly Charge	**$38.89**	**$64.81**	**$129.62**	**$207.40**	**$414.79**	**$648.11**	**$1,296.23**	**$2,073.96**	
Annual Fixed Costs Allocated to Monthly Meter Charges									
Total Revenue from RW Meter Charges	**$ 933**	**$ 10,111**	**$ 21,777**	**$ 69,685**	**$ 64,708**	**$ 46,664**	**$ -**	**$ -**	**$ 213,877**

1. Meter by Class and Size are based on June 2022 customer billing data.
2. Source: *Principles of Water Rates, Fees, and Charges* , Manual M1, AWWA, Table B-1.
3. Cost per month per equivalent meter. Monthly fixed charges are set for each meter size using the hydraulic capacity factors and total equivalent meters.

Given the amount of consumption relative to the number of meters in the recycled water system, it is expected that 80% of the rate revenue will be collected from the variable charge. **Figure 29** calculates the volumetric rate per HCF and the fixed monthly charge per equivalent meter (monthly fixed charges will be based on meter size).

Figure 29. Recycled Water Variable Rate Calculation

Recycled Water Customers	Cost Allocation Factors			Cost Classifications			RW Volumetric Rate ($/hcf)[5]	RW Fixed Charges *($/Eq. Meter/ Month)*[6]
	Annual RW Consumption[1]	Equivalent Meters[2]		Variable Costs[3]	Fixed Costs[4]	Net Revenue Req'ts		
		No. of Equiv. Meters	% of Equiv. Meters					
Recycled Water								
Recycled Water	272,268	458	100.0%	$ 855,509	$ 213,877	$ 1,069,386	$3.14	$38.89
Total Net Revenue Requirement	**272,268**	**458**	**100.0%**	**$ 855,509**	**$ 213,877**	**$ 1,069,386**	--	--

1. Source file: *2020 Urban Water Management Plan* , Figure 6.4.
2. Number of meters by size times the hydraulic capacity factor for each meter size. Source: AWWA, Manual M1, Table B-1 & AWWA, Manual M6, Table 5-3.
3. Total Variable Costs times the proportional share of annual RW consumption.
4. Fixed costs times the percent of equivalent meters.
5. Total Variable Costs divided by Total Annual RW Consumption.
6. Total Fixed Costs divided by total Equivalent Meters. This provides the basis for monthly fixed charges for each meter size.

3.4 Current vs. Proposed Recycled Water Rates

Using the same hydraulic capacity factors listed in Figure 9, monthly fixed charges were developed for each meter size. **Figure 30** shows the current and proposed recycled water rates for FY 2023/24 through FY

2027/28. The self-haul rate was based on the current self-rate, then escalated at the same rate as the delivered recycled water.

Figure 30. Current and Proposed Recycled Water Rates

Recycled Water Rate Schedule	Current Rates	Proposed Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Monthly Fixed Service Charges (in $/mo)						
< 1" meter	$26.56	$38.89	$42.78	$47.05	$49.41	$51.88
1" meter	$44.42	$64.81	$71.29	$78.42	$82.34	$86.46
1 1/2" meter	$88.75	$129.62	$142.58	$156.84	$164.69	$172.92
2" meter	$141.99	$207.40	$228.14	$250.95	$263.50	$276.67
3" meter	$283.98	$414.79	$456.27	$501.90	$526.99	$553.34
4" meter	$443.74	$648.11	$712.92	$784.22	$823.43	$864.60
6" meter	$887.48	$1,296.23	$1,425.85	$1,568.43	$1,646.85	$1,729.20
8" meter	$1,420.06	$2,073.96	$2,281.36	$2,509.49	$2,634.97	$2,766.71
Commodity Charges for All Water Consumed (in $/hcf)						
Variable Charge	$0.90	$3.14	$3.46	$3.80	$3.99	$4.19
Variable Charge - Self-Haul	*n/a*	$1.88	$2.07	$2.28	$2.39	$2.51

4. Sewer Rate Study

4.1 Key Sewer Rate Study Issues

The City manages a wastewater system for approximately 6,150 customers within its service area. The City owns and operates the American Canyon Water Reclamation Facility (WRF) that collects and treats wastewater for both domestic and industrial customers. The City's wastewater rate analysis was undertaken with a few specific objectives, including:

- Ensure equity among customer classes by collecting rate revenue through the cost-of-service process based on both fixed monthly charges and volumetric rates.
- Maintain adequate reserve levels to ensure continuity in operations.
- Provide greater revenue stability for the utility, due to the level of capital investment planned over the next five years.
- Comply with Prop 218 requirements to ensure cost-of-service are properly allocated amongst user classifications.

4.2 Financial Plan

Similar to the water utility, it is important for the wastewater utility to ensure rates provide sufficient funding to cover operating and maintenance costs, planned capital expenditures, and maintain reasonable reserves. The wastewater utility's rate increases are governed by these needs, and the current state of City's wastewater utility is as follows:

- **Meeting Net Revenue Requirements:** For FY 2023/24 through FY 2027/28, the projected net revenue requirements (that is, total operating expenses plus rate-funded capital costs less non-rate revenues) for the City averages approximately $8.5 million, annually. If no rate adjustments are implemented, the City is projected to average a $3.3 million deficit each year.
- **Maintaining Reserve Funds:** Reserve funds provide a basis for a utility to cope with fiscal emergencies such as revenue shortfalls, asset failure, and natural disasters, among other events. Reserve policies provide guidelines for sound financial management, with an overall long-range perspective to maintain financial solvency and mitigate financial risks associated with revenue instability, volatile capital costs, and emergencies. NBS recommends that the City target a minimum of approximately $2.9 million in unrestricted reserve funds over the 5-year period. The reserve funds for the sewer utility are considered unrestricted reserves and consist of the following:
    - **Operating Reserve** should equal approximately 90 days of operating expenses, or approximately $1.8 million annually. An operating reserve is intended to promote financial viability in the event of any short-term fluctuation in revenues and/or expenditures. Fluctuations in revenue can be caused by weather patterns, the natural inflow and outflow of cash during billing cycles, natural variability in demand-based revenue streams (such as volumetric charges), and – particularly in periods of economic distress – changes or trends in age of receivables.

- **Capital Rehabilitation & Replacement Reserve** should equal approximately 3% of net capital assets which is approximately $936,000 in FY 2023/24. This reserve is set aside to address long-term capital system replacement and rehabilitation needs.

Rate revenue increases will be needed throughout the 5-year rate adoption period in order to fully fund all operating expenses and planned capital projects as well as maintain reserves at the recommended targets. **Figure 31** summarizes the sources and uses of funds, net revenue requirements, and the recommended annual increases in wastewater rate revenue proposed for the next 5 years.

Figure 31. Summary of Wastewater Revenue Requirements

Summary of Sources and Uses of Funds and Net Revenue Requirements	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Sources of Sewer Funds							
Rate Revenue Under Prevailing Rates[1]	$ 4,824,937	$ 4,940,178	$ 5,042,690	$ 5,128,416	$ 5,215,599	$ 5,304,264	$ 5,394,436
Additional Revenue from Rate Increases[2]	-	-	630,336	1,923,156	3,077,203	4,141,569	4,755,735
Total: Rate Revenue	**4,824,937**	**4,940,178**	**5,673,026**	**7,051,572**	**8,292,802**	**9,445,833**	**10,150,172**
Interest Earnings	28,277	166,693	120,000	22,911	22,211	24,657	21,576
Total: Sources of Funds	**$ 4,853,213**	**$ 5,106,871**	**$ 5,793,026**	**$ 7,074,483**	**$ 8,315,013**	**$ 9,470,491**	**$10,171,748**
Uses of Sewer Funds							
Operating Expenses	$ 5,819,790	$ 2,105,714	$ 6,260,396	$ 6,503,425	$ 6,723,889	$ 9,410,800	$ 7,188,544
Rate-Funded Capital Expenses	345,549	3,201,161	2,573,447	197,942	1,111,368	14,992	2,230,867
Total: Use of Funds	**$ 6,165,340**	**$ 5,306,875**	**$ 8,833,843**	**$ 6,701,367**	**$ 7,835,256**	**$ 9,425,791**	**$ 9,419,410**
Projected Increases in Rate Revenue	***0.00%***	***0.00%***	***25.00%***	***20.00%***	***12.00%***	***12.00%***	***0.00%***
Cumulative Rate Increases	*0.00%*	*0.00%*	*25.00%*	*50.00%*	*68.00%*	*88.16%*	*88.16%*
Net Revenue Requirement[3]	**$ 7,169,511**	**$ 5,175,276**	**$ 8,830,324**	**$ 6,802,043**	**$ 7,935,240**	**$ 9,536,723**	**$ 9,541,748**

1. Revenue and expenses for FY 2021/22 and FY 2022/23 provided by the City. Source files: *1 - Budget - Wastewater.xlsx, 2022.03.08 Revenue Budget FY 2021-22 Midyear.xlsx* & *REV EXP ACTUALS - FY22 and FY23_NBS*.
2. Revenue from rate increases assumes an implementation date of January 1, 2024. For each year thereafter, the assumption is that new rates will be implemented on January 1st of each year.
3. Total Use of Funds less non-rate revenues and interest earnings. This is the annual amount needed from sewer rates.

Figure 32 summarizes the projected reserve fund balances and reserve targets for the sewer utility's unrestricted funds. A more detailed version of the utility's proposed 5-year financial plan is included in *Appendix C*. The appendix tables include revenue requirements, reserve funds, revenue sources, proposed rate increases, and the City's capital improvement program. As Figure 32 shows, given the proposed rate increases, reserves are well over the minimum target balances.

Figure 32. Summary of Sewer Reserve Funds

Beginning Reserve Fund Balances and Recommended Reserve Targets	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Unrestricted Reserves							
Operating Reserve							
Ending Balance	$ 1,455,000	$ 2,627,989	$ 1,677,226	$ 1,626,000	$ 1,805,087	$ 1,579,529	$ 1,797,000
Recommended Minimum Target	*1,455,000*	*526,000*	*1,565,000*	*1,626,000*	*1,681,000*	*2,353,000*	*1,797,000*
Capital Rehabilitation & Replacement Reserve							
Ending Balance	$ 5,016,223	$ 5,049,669	$ 882,962	$ 1,047,302	$ 1,088,664	$ 1,088,664	$ 1,341,869
Recommended Minimum Target	*759,000*	*852,000*	*936,000*	*968,000*	*1,060,000*	*1,156,000*	*1,255,000*
Total Ending Balance	**$ 6,471,223**	**$ 7,677,658**	**$ 2,560,188**	**$ 2,673,302**	**$ 2,893,751**	**$ 2,668,194**	**$ 3,138,869**
Total Recommended Minimum Target	*$ 2,214,000*	*$ 1,378,000*	*$ 2,501,000*	*$ 2,594,000*	*$ 2,741,000*	*$ 3,509,000*	*$ 3,052,000*

4.3 Cost-of-Service Analysis

Once the net revenue requirements are determined, the cost-of-service analysis (COSA) proportionately distributes the revenue requirements to each of the customer classes. COSA consists of the classification of

expenses and then the allocation of those expenses to customer classes based on allocation factors, such as water consumption and number of equivalent dwelling units (EDUs), or accounts. Ultimately, a COSA is intended to result in rates that are proportional to the cost of providing service to each customer class.

CLASSIFICATION OF COSTS

As previously noted, costs are classified into the following categories: (1) flow-related costs; (2) strength-related costs (BOD and TSS); and (3) customer-related costs. Most costs are typically allocated to more than one of these categories. The City's budgeted costs were reviewed and allocated to these basic categories which serve as the basis for calculating the fixed and variable charges. Tables in *Appendix C* show how the City's expenses were classified and allocated to these cost-causation components.

Based on the City's projected costs, the COSA resulted in a distribution that is approximately 45% fixed and 55% variable. Currently, the City's rate structure collects 100% of the rate revenue from fixed charges for residential customers and either fixed or variable rates for commercial customers, depending on which is greater.

Figure 33 summarizes the allocation of the net revenue requirements to each cost causation component for the proposed rate structure. More detail on the development of the allocation factors that resulted in this summary will be covered in the following section.

Figure 33. Allocation of Revenue Requirements by Customer Class

Customer Class	Cost Classification Components				Cost-of-Service Net Revenue	% of COS Net Revenue Reqts.
	Volume	BOD	TSS	Customer		
Net Revenue Requirements [1]	***$ 3,487,175***	***$ 1,315,190***	***$ 1,315,190***	***$ 185,808***	***$ 6,303,363***	--
	55.3%	*20.9%*	*20.9%*	*2.9%*	*100.0%*	
Residential Customers						
Single Family Residential	$ 2,337,493	$ 878,986	$ 876,669	$ 142,186	$ 4,235,335	*67.2%*
Multi-Family Residential	400,385	150,560	150,163	38,188	739,296	*11.7%*
All Other Customers						
Commercial	$ 324,130	$ 208,946	$ 208,395	$ 5,343	$ 746,815	*11.8%*
Industrial						
Hess Collection Winery	$ 24,149	$ 1,207	$ 620	$ 30	$ 26,006	*0.4%*
AmCan Beverage (Coca-Cola)	302,695	55,832	52,026	30	410,583	*6.5%*
Mezzetta Processing Facility	98,322	19,659	27,316	30	145,327	*2.3%*
Total:	**$ 3,487,175**	**$ 1,315,190**	**$ 1,315,190**	**$ 185,808**	**$ 6,303,363**	**100%**

1. Revenue requirement for each customer class is determined by multiplying the revenue requirement from each cost classification by the allocation factors for each customer class.

CHARACTERISTICS OF CUSTOMERS BY CLASS

Customer classes are determined by combining customers with similar demand characteristics and types of use into categories that reflect the cost differentials to serve each type of customer. The most recent water consumption data was used to estimate the amount of flow that each customer class sends to the City's Water Reclamation Facility (WRF). Volumetric rates for all customer classes were based on the average winter water consumption for the three lowest months of use.[15] For non-residential customers that do not

[15] Lowest consecutive winter months are January through March 2021.

have typical (i.e., residential) effluent strengths, volumetric rates reflect both their estimated flow and the appropriate non-residential effluent strengths.

Figure 34 shows the development of the flow (or volume) allocation factors by customer class calculated by taking the lowest consecutive 3-month water usage for FY 2020/21 and annualizing the usage per customer class.

Figure 34. Development of the Flow Allocation Factor

	Design Capacity					Total Annual Volume						
Customer Class[1]	Flow MGD	BOD mg/l	TSS mg/l	BOD lbs/day	TSS lbs/day	Flow MG	BOD mg/l[2]	BOD lbs	% of Total BOD	TSS mg/l[2]	TSS lbs	% of Total TSS
Residential Customers												
Single Family Residential	0.97	175	175	1,409	1,409	352	*n/a*	514,224	**69.4%**	*n/a*	514,224	**69.8%**
Multi-Family Residential	0.17	175	175	241	241	60	*n/a*	88,080	**11.9%**	*n/a*	88,080	**12.0%**
All Other Customers												
Commercial	0.13	300	300	335	335	49	*n/a*	122,237	**16.5%**	*n/a*	122,237	**16.6%**
Industrial[3]												
Hess Collection Winery	0.01	50	30	4	2	3.64	8.6	260	**0.0%**	2.3	70	**0.0%**
AmCan Beverage (Coca-Cola)	0.13	200	220	209	229	45.63	23.1	8,782	**1.2%**	5.3	1,998	**0.3%**
Mezzetta Processing Facility	0.04	150	220	51	74	14.82	61.7	7,631	**1.0%**	81.2	10,035	**1.4%**
Total:	**1.44**			**2,248**	**2,291**	**526**		**741,214**	**100.0%**		**736,644**	**100.0%**

1. Customer data provided by the City for FY 2021/22. Source file: *FY 2021-22 Summary by Rate Code - Detailed v2.xlsx*.
2. Annual volume and strength factors provided by the City. Source file: *SIU 2 year data.xlsx*.
3. Flow for industrial customer is based on wastewater flow. Strength factors are based on input from City staff and lower than expected due to customers' pretreatment process. Source file: *INF-001 & SIU Flow.xlsx*.

Determining Customer Class Effluent Strengths

Effluent strength factors for each customer class were estimated by using the *Revenue Program Guidelines*[16] issued by the State Water Resources Control Board (SWRCB) as described below:

- Residential customers were assigned BOD and TSS strength factors of 175 mg/l which is within the normal range for residential users.
- Commercial customers were assigned BOD and TSS strength factors of 300 mg/l.

Figure 35 summarizes the development of the customer allocation factor.

Figure 35. Development of the Customer Allocation Factor

Customer Class	Number of Dwelling Units / Accounts[1]	Percent of Total
Residential Customers		
Single Family Residential	4,710	**76.5%**
Multi-Family Residential	1,265	**20.6%**
All Other Customers		
Commercial	177	**2.9%**
Industrial		
Hess Collection Winery	1	**0.0%**
AmCan Beverage (Coca-Cola)	1	**0.0%**
Mezzetta Processing Facility	1	**0.0%**
Total:	**6,155**	**100.0%**

1. SFR, MFR, and Industrial customers are based on the number of dwelling units and all other customers are based on the number of accounts.

[16] *Revenue Program Guidelines*: Commercial User Strength Characteristics, State Water Resources Control Board, Appendix G, page G-21. Site: *https://www.waterboards.ca.gov/publications_forms/publications/general/docs/srf_wastewater_facilities _b.pdf.*

4.4 Rate Design Analysis

The process of evaluating the sewer rate structure provides the opportunity to incorporate a number of rate-design objectives and policies, including revenue stability, equity among customer classes, and water conservation. The overall objective is to improve the fairness and equity of the rate design and ensure costs were being appropriately collected from each customer class. During the course of the study, NBS discussed several sewer rate alternatives and methodologies with City staff, such as the percentage of revenue collected from fixed vs. variable charges and differentiating rates by customer class. The proposed rates were developed based on input provided by City staff and the City Council.

FIXED CHARGES

The fixed charge recognizes that the sewer utility incurs fixed costs regardless of whether customers send any wastewater into the City's collection system. There are three factors used to develop the fixed charge: 1) the number of dwelling units for residential customers; 2) the number of accounts for non-residential customers; and 3) the annual revenue requirement. The monthly fixed charge is calculated by taking the 45% fixed charge multiplied by the annual revenue requirement which is then divided by the number of dwelling units for residential customers and accounts for commercial customers and billing periods per year.

VARIABLE RATES

The variable rates, on the other hand, are calculated by taking the remaining 55% portion of the net revenue requirement in each customer class and dividing it by the estimated effluent volume produced based on annualized average winter water use for both residential and non-residential customer classes.

The proposed sewer rates in this study were developed with the goal of developing a new rate structure that consists of both a fixed and variable rate component based on the number of dwelling units or accounts (for customer-related costs) and the water consumption for all customer classes. **Figure 36** compares the current and proposed rates for FY 2023/24 through FY 2027/28 by customer class. Projected rates for future years, with implementation date of April 1 in Year and then January 1 each year thereafter. These rates reflect adjustments based on the following factors: 1) the cost-of-service analysis, 2) the 45% fixed and 55% variable rate design structure; and 3) the recommended annual percentage increases in rate revenue. More detailed tables on the development of the proposed rates are documented in *Appendix C*.

Figure 36. Current vs. Proposed Sewer Rates

Sewer Rate Schedule[1,2]	Description	Current Rates	Proposed Sewer Rates				
			FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
			25.00%	*20.00%*	*12.00%*	*12.00%*	*0.00%*
Residential - Monthly Fixed Service Charges							
Single Family Residential	Per Dwelling Unit	$60.48	$74.94	$89.93	$100.72	$112.81	$112.81
Multi-Family Residential	Per Dwelling Unit	$45.36	$48.70	$58.44	$65.45	$73.31	$73.31
Commercial Customers [3]							
Monthly Fixed Service Charge	Per Account	$60.48	$115.21	$138.25	$154.84	$173.42	$173.42
Volumetric Rate	Per HCF	$5.40	$1.92	$2.31	$2.58	$2.89	$2.89
Industrial Customers							
Monthly Fixed Administrative Charge	Per Account	*n/a*	$2.52	$3.02	$3.38	$3.79	$3.79
Fixed Charges							
Flow - per HCF per day	Per HCF per day Sewage Flow	*n/a*	$517	$620	$695	$778	$778
BOD - per pound per day	Per pound per day	*n/a*	$221	$266	$297	$333	$333
TSS - per pound per day	Per pound per day	*n/a*	$217	$261	$292	$327	$327
Sewer Use Charges							
Flow - per HCF	Per HCF Sewage Flow	*n/a*	$3.54	$4.24	$4.75	$5.32	$5.32
BOD - per pound	Per pound	*n/a*	$1.10	$1.32	$1.48	$1.66	$1.66
TSS - pound	Per pound	*n/a*	$1.11	$1.33	$1.49	$1.67	$1.67

1. Sewer rates are set according to the average monthly water use for January to March of the previous calendar year. New customers are charged at the average winter water use rate (standard) and adjusted the following year if applicable.
2. The fixed charge includes a monthly customer charge per account.
3. Current rates for commercial customers are charged the higher of the fixed or variable rate. Proposed rates have both a fixed and volumetric charge per commercial customer.

4.5 Comparison of Current and Proposed Sewer Bills

The following figures compare monthly sewer bills under current and proposed rates for various customers over the 5-year rate period.

Figure 37. Single Family Sewer Bill Comparison

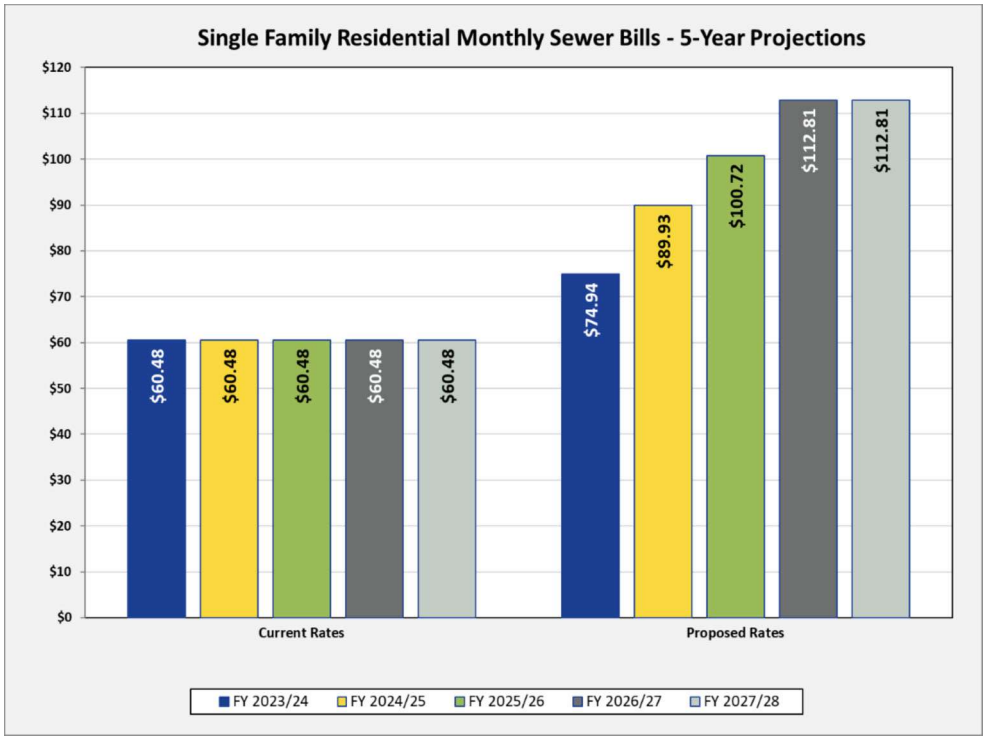


Figure 38. Multi-Family Residential Sewer Bill Comparison

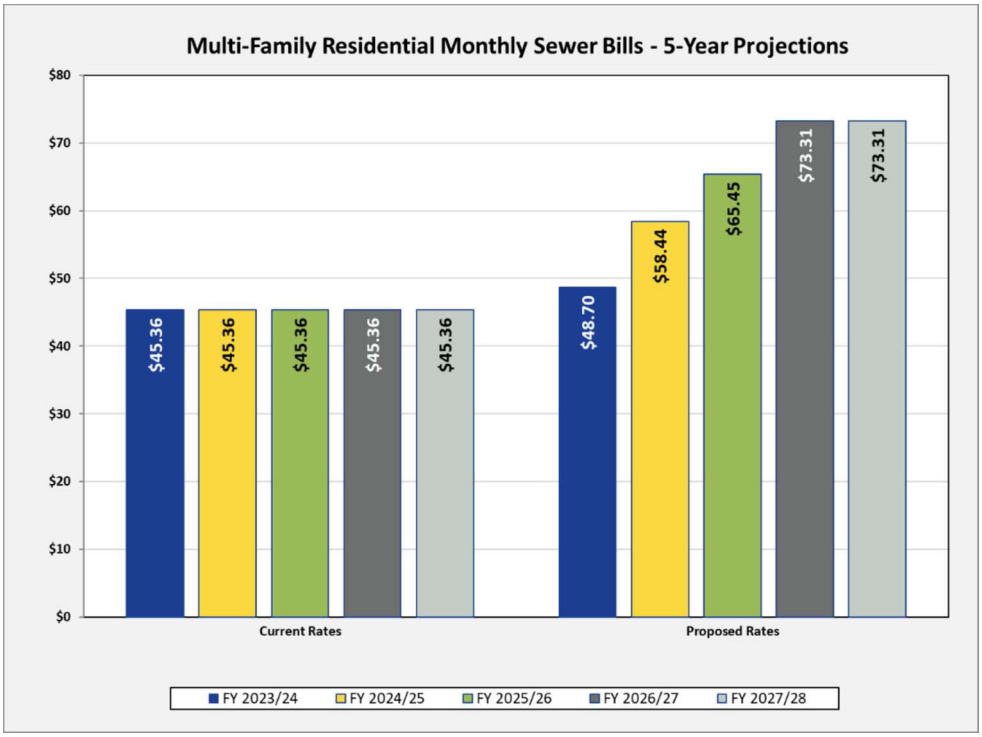
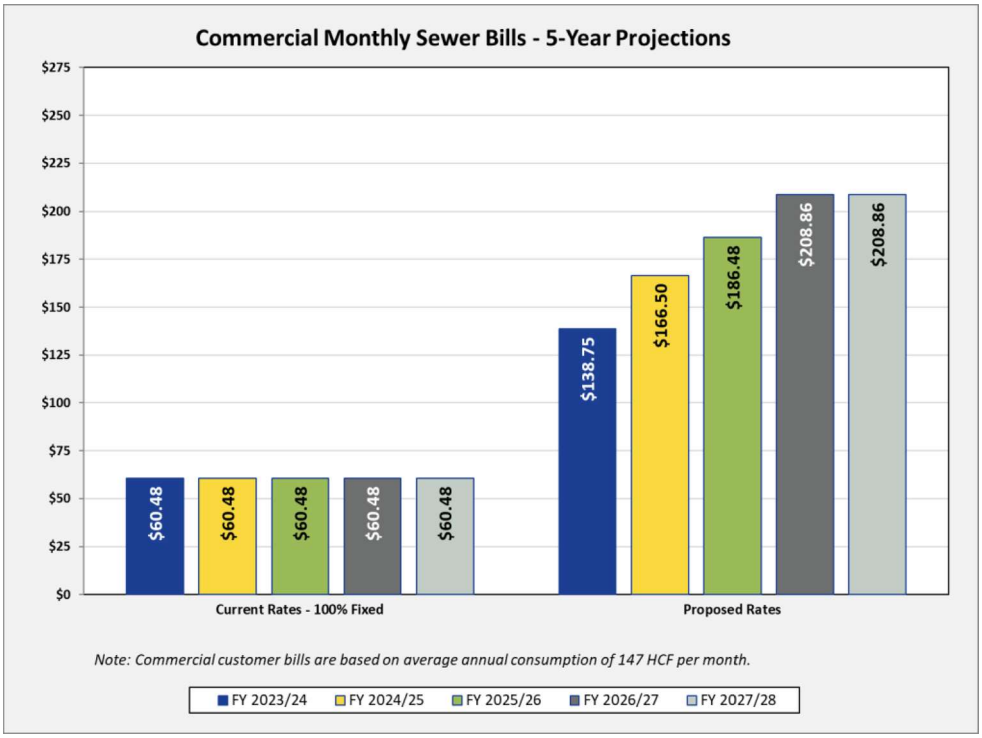


Figure 39. Commercial Sewer Bill Comparison



5. Recommendations and Next Steps

5.1 Consultant Recommendations

NBS recommends the City take the following actions:

- **Approve and Accept this Study:** NBS recommends the City Council formally approve and adopt this Study and its recommendations and proceed with the next steps outlined below to implement the proposed rates. This will provide documentation of the rate study analyses and the basis for analyzing potential changes to future rates.
- **Implement Recommended Levels of Rate Increases and Proposed Rates:** Based on successfully meeting the Proposition 218 procedural requirements, the City should proceed with implementing the 5-year schedule of proposed rates (including drought rates) and rate increases previously shown in Figure 18, Figure 19, Figure 20, Figure 25, Figure30, and Figure 36. This will help ensure the continued financial health of City's utilities.

5.2 Next Steps

Annually Review Rates and Revenue – Any time an agency adopts new utility rates or rate structures, those new rates should be closely monitored over the next several years to ensure the revenue generated is sufficient to meet the annual revenue requirements. Changing economic and water consumption patterns underscore the need for this review, as well as potential and unseen changing revenue requirements—particularly those related to environmental regulations that can significantly affect capital improvements and repair and replacement costs.

Note: The attached Technical Appendices provide more detailed information on the analysis of the financial plan, revenue requirements, cost-of-service, and the rate design analyses that have been summarized in this report.

5.3 NBS' Principal Assumptions and Considerations

In preparing this report and the opinions and recommendations included herein, NBS has relied on a number of principal assumptions and considerations with regard to financial matters, conditions, and events that may occur in the future. This information and these assumptions, including the City's budgets, capital improvement costs, customer accounts and consumption, and information from City staff were provided by sources we believe to be reliable, although NBS has not independently verified this data.

While we believe NBS' use of such information and assumptions is reasonable for the purpose of this report and its recommendations, some assumptions will invariably not materialize as stated herein and may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected to the extent that actual future conditions differ from those assumed by us or provided to us by others.

Technical Appendices

Appendix A. Water Rate Study Tables and Figures

TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY	Actuals	Actuals	5-Year Projected Rate Period					Projected				
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Sources of Water Funds												
Rate Revenue: [1]												
Water Sales - Meter Use Fees	$ 8,362,554	$ 8,485,676	$ 9,360,200	$ 9,528,684	$ 9,690,671	$ 9,855,413	$ 10,022,955	$ 10,193,345	$ 10,366,632	$ 10,532,498	$ 10,701,018	$ 10,872,234
Water Sales - Metered Water	47,619	58,508	81,440	82,906	84,315	85,749	87,206	88,689	90,197	91,640	93,106	94,596
Non-Rate Revenue:												
Grant - State/Local	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest Earnings[2]	(212,625)	215,995	275,008	87,285	61,319	56,589	58,325	60,169	56,736	48,854	37,654	23,863
Miscellaneous Revenues	570,024	319,827	359,300	365,767	371,985	378,309	384,740	391,281	397,933	404,300	410,769	417,341
Late Penalties / Interest	93,977	128,487	114,300	116,357	118,335	120,347	122,393	124,474	126,590	128,615	130,673	132,764
Interfund Transfer In (Loan Repayment)	-	-	44,061	44,061	49,482	49,482	49,482	49,482	49,482	49,482	49,482	49,482
Total Sources of Funds	**$ 8,861,548**	**$ 9,208,492**	**$ 10,234,309**	**$ 10,225,060**	**$ 10,376,108**	**$ 10,545,889**	**$ 10,725,101**	**$ 10,907,439**	**$ 11,087,569**	**$ 11,255,388**	**$ 11,422,701**	**$ 11,590,279**
Uses of Water Funds												
Operating Expenses: [1]												
Water Operations:												
560 - Water Treatment Plant	$ 1,483,133	$ 1,788,187	$ 2,088,189	$ 3,357,121	$ 2,228,382	$ 2,302,054	$ 2,378,221	$ 2,456,970	$ 2,538,391	$ 2,622,580	$ 2,709,633	$ 2,799,651
565 - Water Distribution	991,284	1,013,187	1,536,149	1,586,987	1,639,520	1,693,803	1,749,895	1,807,858	1,867,753	1,929,647	1,993,606	2,059,700
50 - Public Works	1,356,080	1,616,039	366,768	378,613	390,854	403,506	416,582	430,096	444,064	458,500	473,420	488,842
Water Purchases	3,380,850	4,035,407	3,602,218	3,674,262	3,747,748	3,822,703	3,899,157	3,977,140	4,056,683	4,137,816	4,220,573	4,304,984
Subtotal: Water Supply & Distribution: Expenses:	$ 7,211,347	$ 8,452,821	$ 7,593,324	$ 8,996,983	$ 8,006,504	$ 8,222,065	$ 8,443,854	$ 8,672,063	$ 8,906,891	$ 9,148,543	$ 9,397,232	$ 9,653,176
Non-Operating Expenses: [3]												
Transfer To General Fund	1,263,894	1,798,674	2,206,123	2,207,963	2,171,674	2,237,313	2,304,938	2,374,610	2,446,390	2,520,343	2,596,533	2,675,030
Subtotal: Non-Operating Expenses:	$ 1,263,894	$ 1,798,674	$ 2,206,123	$ 2,207,963	$ 2,171,674	$ 2,237,313	$ 2,304,938	$ 2,374,610	$ 2,446,390	$ 2,520,343	$ 2,596,533	$ 2,675,030
Other Expenditures:												
Existing Debt Service	$ 523,735	$ 744,109	$ 820,140	$ 823,637	$ 1,468,278	$ 2,523,408	$ 3,014,261	$ 3,269,396	$ 3,287,122	$ 3,227,021	$ 3,128,082	$ 103,586
New Debt Service	-	-	-	-	-	-	-	-	-	-	-	-
Rate-Funded Capital Expenses	251,795	2,790,541	4,566,877	1,523,075	1,565,040	754,328	665,707	952,128	1,201,396	1,421,386	1,618,317	1,797,260
Subtotal: Other Expenditures	$ 775,530	$ 3,534,650	$ 5,387,017	$ 2,346,712	$ 3,033,319	$ 3,277,736	$ 3,679,968	$ 4,221,524	$ 4,488,517	$ 4,648,407	$ 4,746,399	$ 1,900,846
Total Uses of Water Funds	**$ 9,250,771**	**$ 13,786,145**	**$ 15,186,464**	**$ 13,551,658**	**$ 13,211,497**	**$ 13,737,114**	**$ 14,428,761**	**$ 15,268,197**	**$ 15,841,798**	**$ 16,317,293**	**$ 16,740,164**	**$ 14,229,052**
plus: Revenue from Rate Increases[4]	-	-	212,437	1,336,492	2,361,290	3,190,413	3,710,759	3,981,564	4,049,251	4,114,039	4,179,863	4,246,741
Annual Surplus/(Deficit)	**$ (389,223)**	**$ (4,577,653)**	**$ (4,739,718)**	**$ (1,990,107)**	**$ (474,099)**	**$ (813)**	**$ 7,099**	**$ (379,194)**	**$ (704,979)**	**$ (947,866)**	**$ (1,137,600)**	**$ 1,607,968**
Net Revenue Req't. *(Total Uses less Non-Rate Revenue)*	**$ 8,799,395**	**$ 13,121,837**	**$ 14,393,795**	**$ 12,938,188**	**$ 12,610,375**	**$ 13,132,387**	**$ 13,813,821**	**$ 14,642,792**	**$ 15,211,058**	**$ 15,686,042**	**$ 16,111,587**	**$ 13,605,603**
Total Rate Revenue After Rate Increases	**$ 8,410,172**	**$ 8,544,184**	**$ 10,291,388**	**$ 11,419,530**	**$ 12,658,891**	**$ 13,389,056**	**$ 14,025,170**	**$ 14,263,598**	**$ 14,506,079**	**$ 14,738,176**	**$ 14,973,987**	**$ 15,213,571**
Projected Annual Rate Revenue Increase	***0.00%***	***0.00%***	***9.00%***	***9.00%***	***9.00%***	***4.00%***	***3.00%***	***0.00%***	***0.00%***	***0.00%***	***0.00%***	***0.00%***
Cumulative Increase from Annual Revenue Increases	*0.00%*	*0.00%*	*9.00%*	*18.81%*	*29.50%*	*34.68%*	*38.72%*	*38.72%*	*38.72%*	*38.72%*	*38.72%*	*38.72%*
Debt Coverage After Rate Increase	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

1. Revenue and expenses for FY 2021/22 through FY 2023/24 provided by the City. Revenues and expenses for all other years are escalated based on the forecasting assumptions located in Table 10. Source files: *Fund 510 Water Operations.xlsx* , *FY2023-24 Exp Budget Water.xlsx* , and *Fund 510 - 580 FY 23-24 Budget Status as of 09-19-2023.xlsx* .
2. Interest earnings for FY 2021/22 and FY 2022/23 are from the City's Budget. For all other years, it is calculated based on historical LAIF returns.
3. These expenses are from source file: *1 - Budget - Water.xlsx* .
4. Revenue from rate increases assumes an implementation date of April 1, 2024 for new rates. For each year thereafter, the assumption is that new rates will be implemented on January 1st of each year.

1	*<-- Select Financial Plan Scenario Here*

Financial Plan Alternatives		FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
1	Alternative 1 - Full Cost Recovery Rate Increases[1]	*0.00%*	*0.00%*	*9.00%*	*9.00%*	*9.00%*	*4.00%*	*3.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
2	Alternative 2 - Phased-in Rate Increases[2]	*0.00%*	*0.00%*	*7.00%*	*7.00%*	*7.00%*	*7.00%*	*6.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
3	Alternative 3 - Minimal Rate Increases[3]	*0.00%*	*0.00%*	*5.00%*	*5.00%*	*5.00%*	*5.00%*	*5.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
4	Alternative 4 - No Rate Increases	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*

1. Alternative 1: Scenario 1 - Rates needed to meet all revenue requirements and meet the target reserve levels (Large increase followed by smaller increases).
2. Alternative 2: Scenario 2 - Large increases phased In over two years, followed by smaller increases (Reserves drop below target level).
3. Alternative 3: Scenario 3 - Smaller increases (Reserves drop below target level).

TABLE 2 : RESERVE FUND SUMMARY

SUMMARY OF CASH ACTIVITY	Actuals	Actuals	5-Year Projected Rate Period					Projected				
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Unrestricted Reserve:												
Total Beginning Cash[1]	**$ 3,670,141**	**$ 13,667,530**	**$ 10,874,673**									
Operating Reserve												
Beginning Reserve Balance	$ 3,634,570	$ 13,667,530	$ 10,874,673	$ 4,142,536	$ 2,278,487	$ 1,930,446	$ 2,055,691	$ 2,188,848	$ 1,935,712	$ 1,356,792	$ 534,984	$ (476,558)
Plus: Net Cash Flow (After Rate Increases)	(389,223)	(4,577,653)	(4,739,718)	(1,990,107)	(474,099)	(813)	7,099	(379,194)	(704,979)	(947,866)	(1,137,600)	1,607,968
Plus: Transfer in of Debt Reserve Surplus	-	-	-	-	-	-	-	-	-	-	-	-
Plus: Transfer in from Capital and Infrastructure Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Plus: Transfer in from Capacity Fee Reserve (Interfund Loan)	-	126,058	126,058	126,058	126,058	126,058	126,058	126,058	126,058	126,058	126,058	-
Less: Transfer out to Capital and Infrastructure Reserve	-	(3,488,438)	(2,118,478)	-	-	-	-	-	-	-	-	-
Ending Operating Reserve Balance	***$ 3,245,347***	***$ 5,727,496***	***$ 4,142,536***	***$ 2,278,487***	***$ 1,930,446***	***$ 2,055,691***	***$ 2,188,848***	***$ 1,935,712***	***$ 1,356,792***	***$ 534,984***	***$ (476,558)***	***$ 1,131,410***
Target Ending Balance (90-days of O&M)[2]	*$ 1,803,000*	*$ 2,113,000*	*$ 1,898,000*	*$ 2,249,000*	*$ 2,002,000*	*$ 2,056,000*	*$ 2,111,000*	*$ 2,168,000*	*$ 2,227,000*	*$ 2,287,000*	*$ 2,349,000*	*$ 2,413,000*
Capital Rehabilitation & Replacement Reserve												
Beginning Reserve Balance	$ 35,571	$ -	$ -	$ 2,118,478	$ 2,079,900	$ 2,079,900	$ 2,079,900	$ 2,079,900	$ 2,079,900	$ 2,079,900	$ 2,079,900	$ 2,079,900
Plus: Grant Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Plus: Transfer of Operating Reserve Surplus	-	3,488,438	2,118,478	-	-	-	-	-	-	-	-	-
Less: Transfer out to Operating Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Less: Use of Reserves for Capital Projects	-	-	-	(38,578)	-	-	-	-	-	-	-	-
Ending Capital and Infrastructure Reserve Balance	***$ 35,571***	***$ 3,488,438***	***$ 2,118,478***	***$ 2,079,900***	***$ 2,079,900***	***$ 2,079,900***	***$ 2,079,900***	***$ 2,079,900***	***$ 2,079,900***	***$ 2,079,900***	***$ 2,079,900***	***$ 2,079,900***
Target Ending Balance (3% of net assets)[3]	*$ 1,420,700*	*$ 1,548,600*	*$ 1,870,900*	*$ 2,079,900*	*$ 2,260,500*	*$ 2,370,700*	*$ 2,458,100*	*$ 2,548,200*	*$ 2,641,000*	*$ 2,736,700*	*$ 2,835,300*	*$ 2,937,000*
Ending Balance - Excl. Restricted Reserves	***$ 3,280,918***	***$ 9,215,935***	***$ 6,261,013***	***$ 4,358,387***	***$ 4,010,346***	***$ 4,135,591***	***$ 4,268,748***	***$ 4,015,612***	***$ 3,436,692***	***$ 2,614,884***	***$ 1,603,342***	***$ 3,211,310***
Min. Target Ending Balance -Excl. Restricted Reserves	***$ 3,223,700***	***$ 3,661,600***	***$ 3,768,900***	***$ 4,328,900***	***$ 4,262,500***	***$ 4,426,700***	***$ 4,569,100***	***$ 4,716,200***	***$ 4,868,000***	***$ 5,023,700***	***$ 5,184,300***	***$ 5,350,000***
Ending Surplus/(Deficit) Compared to Reserve Targets	***$ 57,218***	***$ 5,554,335***	***$ 2,492,113***	***$ 29,487***	***$ (252,154)***	***$ (291,109)***	***$ (300,352)***	***$ (700,588)***	***$ (1,431,308)***	***$ (2,408,816)***	***$ (3,580,958)***	***$ (2,138,690)***

1. Beginning cash balances provided by City staff for Fund 510 - Water Operations. Source files: *4 - Current Cash and Fund Balance - Water 12062021.xlsx* & *Beg Fund Balance FY23- Water.xls* .
2. The target ending balance is set equal to 90-days of O&M expenses. Source file: *4 - Current Cash and Fund Balance - Water 12062021.xlsx* .
3. The target ending balance is set equal to 3% of net capital assets. See *Exhibit 2 (CIP)* for details.

TABLE 3 : RESERVE FUND SUMMARY, cont.

SUMMARY OF CASH ACTIVITY	Actuals	Actuals	5-Year Projected Rate Period					Projected				
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Restricted Reserve: [1]												
Capacity Fee Reserve												
Beginning Reserve Balance	$5,688,050	$6,284,390	$6,333,173	$ 6,397,366	$ 11,290,006	$ 9,761,564	$ 8,534,556	$ 7,552,200	$ 6,768,455	$ 6,145,989	$ 5,653,746	$ 5,267,306
Plus: Interest Earnings	77,699	157,110	158,329	87,388	154,221	133,343	116,582	103,163	92,457	83,954	77,230	71,951
Plus: Capacity Fee Revenue	1,252,878	332,954	1,662,778	7,785,325	915,300	930,860	946,685	962,778	979,146	994,812	1,010,729	1,026,901
Less: Transfer out to Operating Reserve (Interfund Loan)	-	(126,058)	(126,058)	(126,058)	(126,058)	(126,058)	(126,058)	(126,058)	(126,058)	(126,058)	(126,058)	-
Less: Use of Reserves for Capital Projects	-	-	(1,630,856)	(2,854,016)	(2,471,905)	(2,165,153)	(1,919,564)	(1,723,628)	(1,568,012)	(1,444,951)	(1,348,341)	(1,273,232)
Ending Connection Fee Fund Balance	***$ 7,018,626***	***$ 6,648,395***	***$ 6,397,366***	***$ 11,290,006***	***$ 9,761,564***	***$ 8,534,556***	***$ 7,552,200***	***$ 6,768,455***	***$ 6,145,989***	***$ 5,653,746***	***$ 5,267,306***	***$ 5,092,926***
Target Ending Balance (3% of net assets) [3]	*$ 1,420,700*	*$ 1,548,600*	*$ 1,870,900*	*$ 2,079,900*	*$ 2,260,500*	*$ 2,370,700*	*$ 2,458,100*	*$ 2,548,200*	*$ 2,641,000*	*$ 2,736,700*	*$ 2,835,300*	*$ 2,937,000*
Debt Reserve												
Beginning Reserve Balance	$ 1,151,405	$ 122,586	$ 125,651	$ 128,792	$ 130,551	$ 132,335	$ 134,142	$ 135,975	$ 137,832	$ 139,715	$ 141,623	$ 143,558
Plus: Reserve Funding from New Debt Obligations	-	-	-	-	-	-	-	-	-	-	-	-
Plus: Interest Earnings	15,728	3,065	3,141	1,759	1,783	1,808	1,832	1,857	1,883	1,909	1,935	1,961
Less: Transfer of Surplus to Operating Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Ending Debt Reserve Balance	***$ 1,167,133***	***$ 125,651***	***$ 128,792***	***$ 130,551***	***$ 132,335***	***$ 134,142***	***$ 135,975***	***$ 137,832***	***$ 139,715***	***$ 141,623***	***$ 143,558***	***$ 145,519***
Target Ending Balance	*$ 71,827*	*$ 72,068*	*$ 72,053*	*$ 71,580*	*$ 70,175*	*$ 66,417*	*$ 53,204*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Annual Interest Earnings Rate [2]	*1.37%*	*2.50%*	*2.50%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*

1. The beginning cash balances provided by the City. Source file: *4 - Current Cash and Fund Balance - Water 12062021.xlsx , Beg Fund Balance FY23- Water.xls, & Beg Fund Balance FY23- Recycled Water.xls* .
2. The target ending balance is set equal to 3% of net capital assets. See *Exhibit 2 (CIP)* for details.
3. Historical interest earning rates are per the average annual yields for funds invested in LAIF (2017-2021). The source is the California State Treasurer's website: *https://www.treasurer.ca.gov/pmia-laif/historical/annual.asp* .

CHART 1

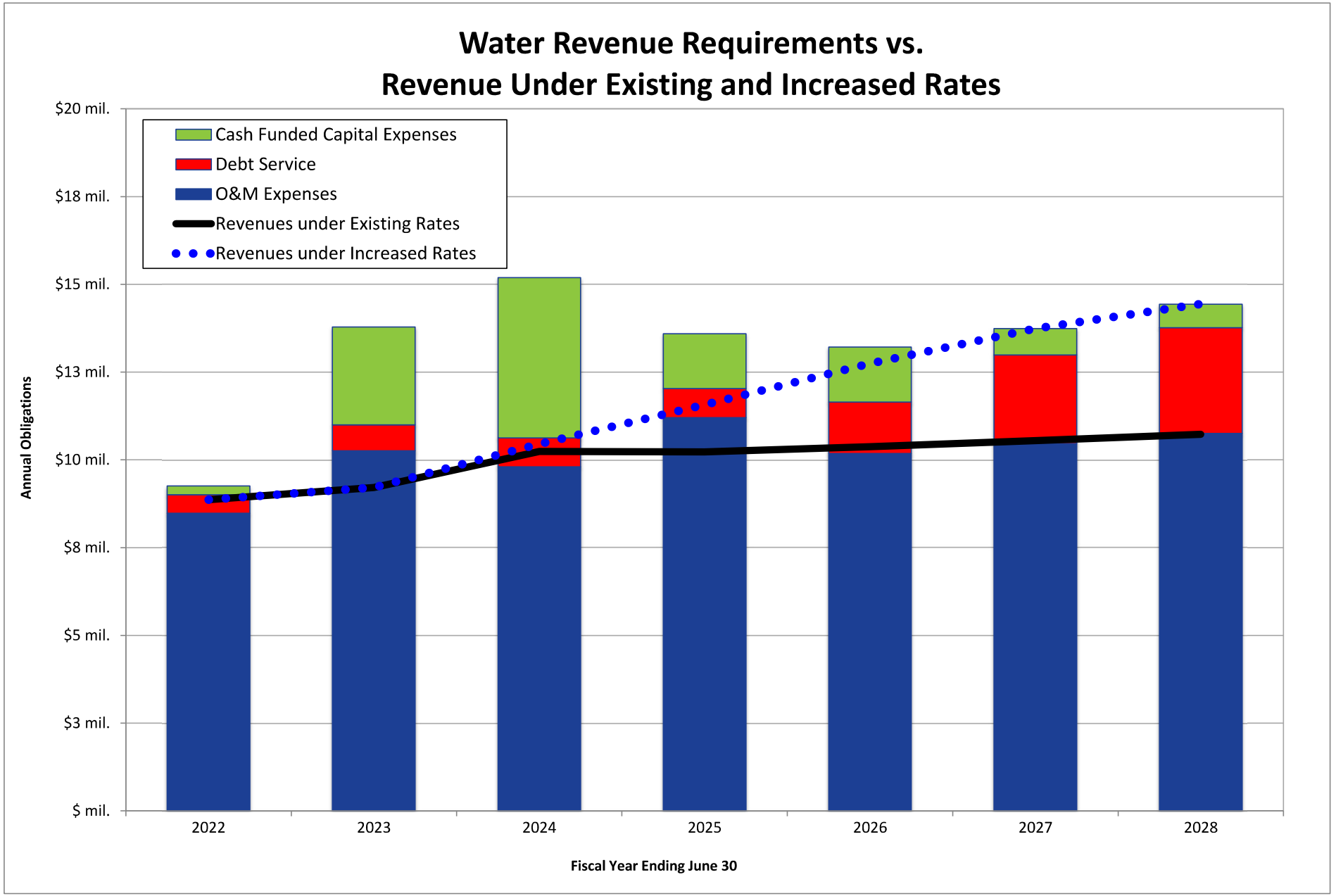

Water Revenue Requirements vs.
Revenue Under Existing and Increased Rates
Cash Funded Capital Expenses
Debt Service
O&M Expenses
Revenues under Existing Rates
Revenues under Increased Rates
$20 mil.
$18 mil.
$15 mil.
$13 mil.
$10 mil.
$8 mil.
$5 mil.
$3 mil.
$ mil.
Annual Obligations
2022
2023
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

CHART 2

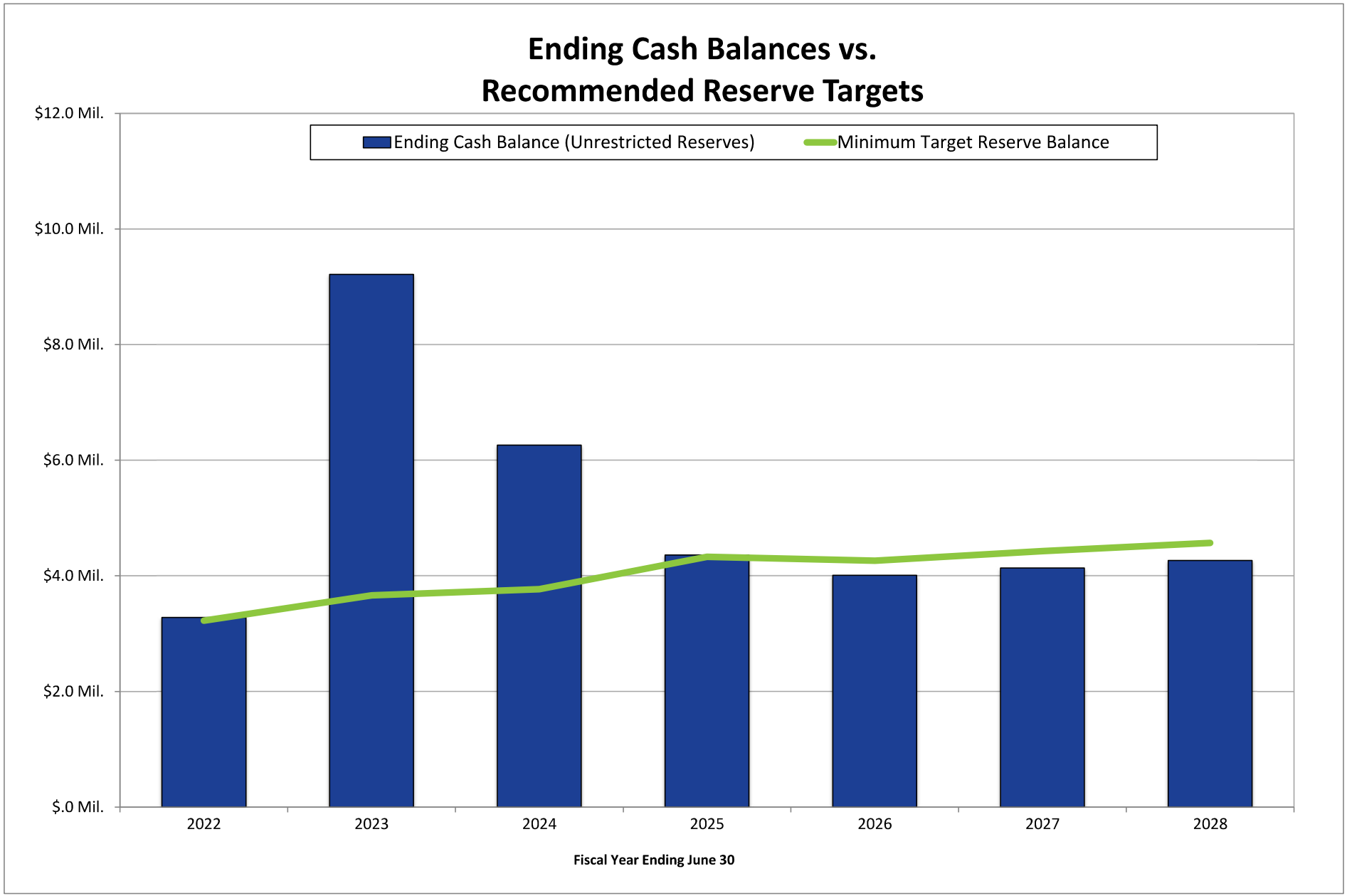

Ending Cash Balances vs.
Recommended Reserve Targets
Ending Cash Balance (Unrestricted Reserves)
Minimum Target Reserve Balance
$12.0 Mil.
$10.0 Mil.
$8.0 Mil.
$6.0 Mil.
$4.0 Mil.
$2.0 Mil.
$.0 Mil.
2022
2023
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

CHART 3

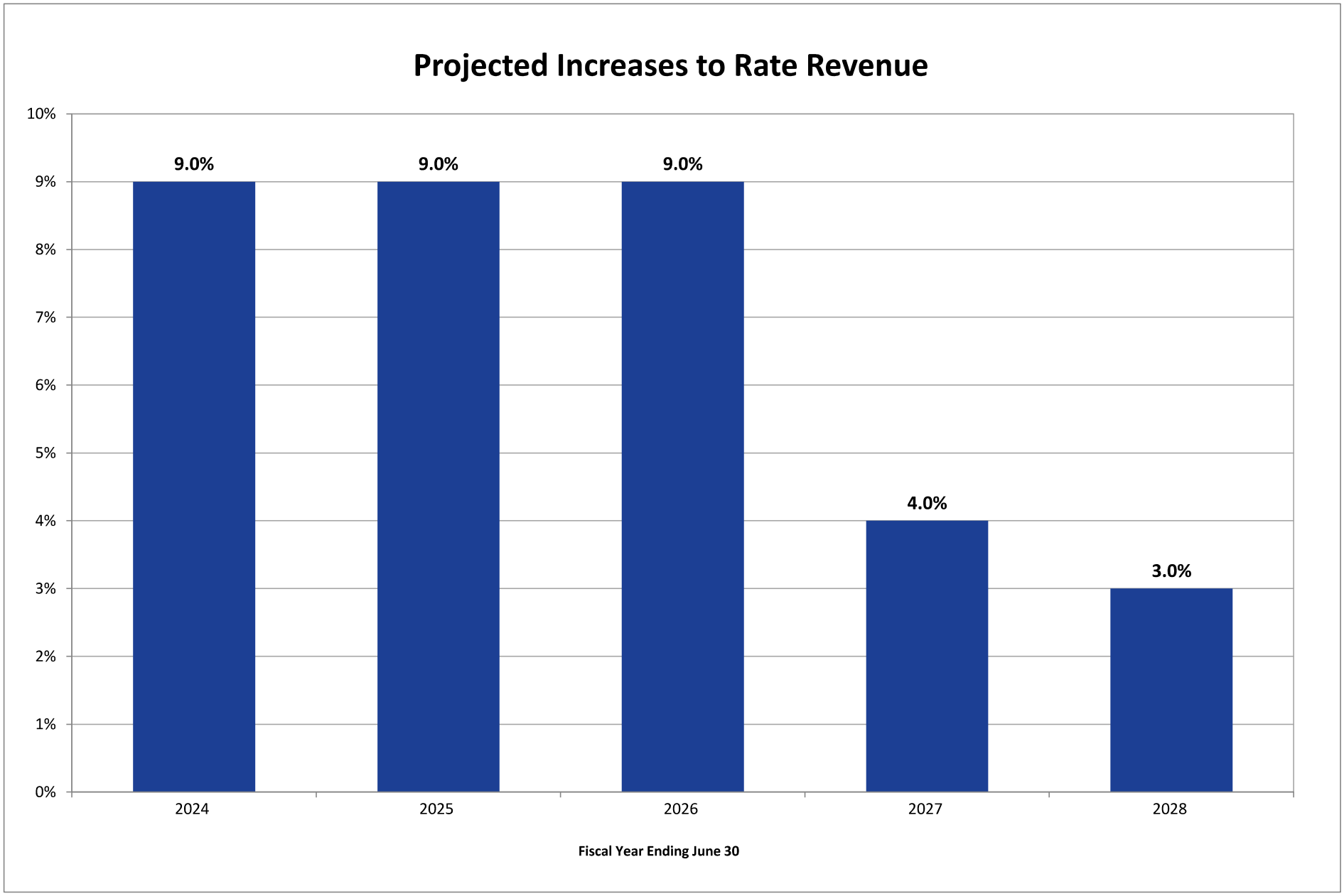

Projected Increases to Rate Revenue
10%
9%
8%
7%
6%
5%
4%
3%
2%
1%
0%
9.0%
9.0%
9.0%
4.0%
3.0%
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

CHART 4

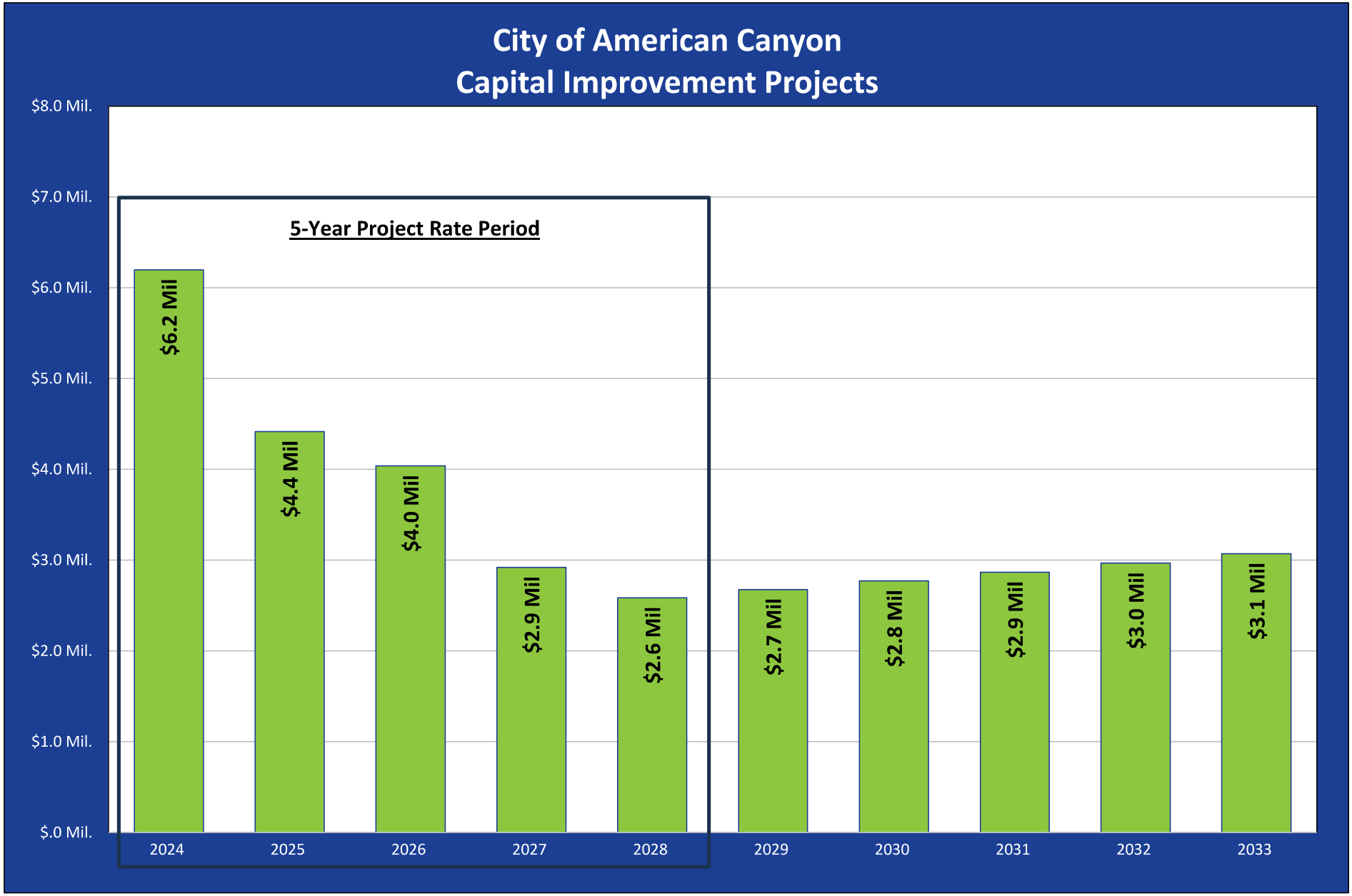

City of American Canyon
Capital Improvement Projects
$8.0 Mil.
$7.0 Mil.
$6.0 Mil.
$5.0 Mil.
$4.0 Mil.
$3.0 Mil.
$2.0 Mil.
$1.0 Mil.
$.0 Mil.
5-Year Project Rate Period
$6.2 Mil
$4.4 Mil
$4.0 Mil
$2.9 Mil
$2.6 Mil
$2.7 Mil
$2.8 Mil
$2.9 Mil
$3.0 Mil
$3.1 Mil
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033

TABLE 4 : REVENUE FORECAST[1]

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Rate Revenue													
Water Service Charge - Potable	1	$ 8,362,554	$ 8,485,676	$ 9,360,200	$ 9,528,684	$ 9,690,671	$ 9,855,413	$ 10,022,955	$ 10,193,345	$ 10,366,632	$ 10,532,498	$ 10,701,018	$ 10,872,234
Water Service Charge - Raw	1	47,619	58,508	81,440	82,906	84,315	85,749	87,206	88,689	90,197	91,640	93,106	94,596
Other Revenue													
Grant - State/Local	1	-	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings	See FP	(212,625)	215,995	-	-	-	-	-	-	-	-	-	-
Charges for Services	9	329,720	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous Revenues	1	240,304	319,827	359,300	365,767	371,985	378,309	384,740	391,281	397,933	404,300	410,769	417,341
Late Penalties / Interest	1	93,977	128,487	114,300	116,357	118,335	120,347	122,393	124,474	126,590	128,615	130,673	132,764
Insurance Reimbursements	9	-	-	-	-	-	-	-	-	-	-	-	-
Fund Transfer In													
Interfund Transfer In (Loan Repayment)	9	-	-	44,061	44,061	49,482	49,482	49,482	49,482	49,482	49,482	49,482	49,482
Capacity Fee Revenue													
Water Capacity Fees	1	1,252,878	332,954	1,662,778	7,785,325	915,300	930,860	946,685	962,778	979,146	994,812	1,010,729	1,026,901
Interest Earnings	1	114,219	282,378	50,000	50,900	51,765	52,645	53,540	54,450	55,376	56,262	57,162	58,077
TOTAL: REVENUE		**$ 10,228,645**	**$ 9,823,824**	**$ 11,672,079**	**$ 17,974,001**	**$ 11,281,855**	**$ 11,472,805**	**$ 11,667,002**	**$ 11,864,499**	**$ 12,065,355**	**$ 12,257,609**	**$ 12,452,939**	**$ 12,651,394**

TABLE 5 : REVENUE SUMMARY

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Rate Revenue													
Water Service Charge - Potable		$ 8,362,554	$ 8,485,676	$ 9,360,200	$ 9,528,684	$ 9,690,671	$ 9,855,413	$ 10,022,955	$ 10,193,345	$ 10,366,632	$ 10,532,498	$ 10,701,018	$ 10,872,234
Water Service Charge - Raw		47,619	58,508	81,440	82,906	84,315	85,749	87,206	88,689	90,197	91,640	93,106	94,596
Other Revenue													
Grant - State/Local		-	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings		(212,625)	215,995	-	-	-	-	-	-	-	-	-	-
Miscellaneous Revenues		570,024	319,827	359,300	365,767	371,985	378,309	384,740	391,281	397,933	404,300	410,769	417,341
Late Penalties / Interest		93,977	128,487	114,300	116,357	118,335	120,347	122,393	124,474	126,590	128,615	130,673	132,764
Interfund Transfer In (Loan Repayment)		-	-	44,061	44,061	49,482	49,482	49,482	49,482	49,482	49,482	49,482	49,482
Capacity Fee Revenue													
Water Capacity Fees		1,252,878	332,954	1,662,778	7,785,325	915,300	930,860	946,685	962,778	979,146	994,812	1,010,729	1,026,901
Interest Earnings		114,219	282,378	50,000	50,900	51,765	52,645	53,540	54,450	55,376	56,262	57,162	58,077
TOTAL: REVENUE		**$ 10,228,645**	**$ 9,823,824**	**$ 11,672,079**	**$ 17,974,001**	**$ 11,281,855**	**$ 11,472,805**	**$ 11,667,002**	**$ 11,864,499**	**$ 12,065,355**	**$ 12,257,609**	**$ 12,452,939**	**$ 12,651,394**

TABLE 6 : OPERATING EXPENSE FORECAST[1]

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Fund 510 - Water Operations													
560 - Water Treatment Plant													
Wages - Full time	3	$ 419,960	$ 552,331	$ 612,238	$ 633,667	$ 655,845	$ 678,800	$ 702,558	$ 727,147	$ 752,597	$ 778,938	$ 806,201	$ 834,418
Wages - Overtime	3	10,703	14,204	9,000	9,315	9,641	9,978	10,328	10,689	11,063	11,451	11,851	12,266
Health Insurance	3	73,246	91,247	95,546	98,890	102,351	105,933	109,641	113,478	117,450	121,561	125,815	130,219
Health-In-Lieu	3	-	-	9,690	10,029	10,380	10,743	11,119	11,509	11,911	12,328	12,760	13,206
Cafeteria Plan Section 125	3	15,149	19,673	24,587	25,448	26,338	27,260	28,214	29,202	30,224	31,282	32,377	33,510
Social Security & Medicare	3	6,835	8,573	9,374	9,703	10,042	10,394	10,757	11,134	11,524	11,927	12,344	12,776
Worker Comp Insurance	3	32,904	36,686	49,859	51,604	53,410	55,280	57,215	59,217	61,290	63,435	65,655	67,953
Benefits - Other	3	1,125	1,705	1,106	1,145	1,185	1,226	1,269	1,314	1,360	1,407	1,457	1,508
Info Tech Support Services	2	40,818	2,424	116,200	119,686	123,277	126,975	130,784	134,708	138,749	142,911	147,199	151,615
Professional Services	2	132,912	128,160	366,400	377,392	388,714	400,375	412,386	424,758	437,501	450,626	464,145	478,069
Temp Agency Services	2	-	1,066	-	-	-	-	-	-	-	-	-	-
Misc Contractual Services	2	4,962	66,347	59,200	60,976	62,805	64,689	66,630	68,629	70,688	72,809	74,993	77,243
General Repairs & Maint	2	220,338	114,331	53,800	55,414	57,076	58,789	60,552	62,369	64,240	66,167	68,152	70,197
Advertising	2	4,908	1,279	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829
Postage/Mail/Copy/Printing Svc	2	8,482	3,887	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610
Membership Dues & Subscription	2	2,430	1,369	3,200	3,296	3,395	3,497	3,602	3,710	3,821	3,936	4,054	4,175
Conferences - Training	2	8,946	15,126	13,500	13,905	14,322	14,752	15,194	15,650	16,120	16,603	17,101	17,614
Rentals - Equipment/Space	2	4,305	9,134	3,700	3,811	3,925	4,043	4,164	4,289	4,418	4,551	4,687	4,828
Regulatory Compliance Permits	2	29,461	205	-	-	-	-	-	-	-	-	-	-
Office Supplies	2	2,929	2,645	25,000	25,750	26,523	27,318	28,138	28,982	29,851	30,747	31,669	32,619
Operating Supplies	2	347,712	406,005	488,400	503,052	518,144	533,688	549,699	566,189	583,175	600,670	618,691	637,251
Water Plant Membrane Filters	2	-	-	-	1,200,000	-	-	-	-	-	-	-	-
Utilities - Gas & Elec	5	61,656	61,456	73,000	77,116	81,465	86,059	90,912	96,038	101,454	107,175	113,218	119,603
Util-PhonesPgrsInternetCable	2	5,422	6,589	5,800	5,974	6,153	6,338	6,528	6,724	6,926	7,133	7,347	7,568
Major Equipment	2	15,000	152,253	-	-	-	-	-	-	-	-	-	-
Capital Outlay-Contra Account	9	(40,761)	-	-	-	-	-	-	-	-	-	-	-
PERS Retirement	3	73,689	91,491	60,588	62,708	64,903	67,175	69,526	71,959	74,478	77,085	79,783	82,575
Subtotal - Water Treatment Plant		**$ 1,483,133**	**$ 1,788,187**	**$ 2,088,189**	**$ 3,357,121**	**$ 2,228,382**	**$ 2,302,054**	**$ 2,378,221**	**$ 2,456,970**	**$ 2,538,391**	**$ 2,622,580**	**$ 2,709,633**	**$ 2,799,651**

TABLE 7 : OPERATING EXPENSE FORECAST, cont.[1]

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
565 - Water Distribution													
Wages - Full time	3	$ 426,369	$ 436,850	$ 544,808	$ 563,876	$ 583,612	$ 604,038	$ 625,180	$ 647,061	$ 669,708	$ 693,148	$ 717,408	$ 742,517
Wages - Overtime	3	24,335	14,875	3,000	3,105	3,214	3,326	3,443	3,563	3,688	3,817	3,950	4,089
Health Insurance	3	43,356	53,367	110,792	114,670	118,683	122,837	127,137	131,586	136,192	140,959	145,892	150,998
Health-In-Lieu	3	14,200	11,400	-	-	-	-	-	-	-	-	-	-
Cafeteria Plan Section 125	3	21,165	21,467	27,459	28,420	29,415	30,444	31,510	32,613	33,754	34,936	36,158	37,424
Social Security & Medicare	3	7,057	7,005	8,298	8,588	8,889	9,200	9,522	9,855	10,200	10,557	10,927	11,309
Worker Comp Insurance	3	44,905	37,930	58,411	60,455	62,571	64,761	67,028	69,374	71,802	74,315	76,916	79,608
Benefits - Other	3	1,354	7,974	1,901	1,968	2,036	2,108	2,182	2,258	2,337	2,419	2,503	2,591
Info Tech Support Services	2	5,422	31,462	84,600	87,138	89,752	92,445	95,218	98,075	101,017	104,047	107,169	110,384
Professional Services	2	932	10,305	52,000	53,560	55,167	56,822	58,526	60,282	62,091	63,953	65,872	67,848
Misc Contractual Services	2	6,051	3,952	9,300	9,579	9,866	10,162	10,467	10,781	11,105	11,438	11,781	12,134
General Repairs & Maint	2	177,364	86,880	375,100	386,353	397,944	409,882	422,178	434,844	447,889	461,326	475,165	489,420
Reimbursable Repairs	2	-	-	20,000	20,600	21,218	21,855	22,510	23,185	23,881	24,597	25,335	26,095
Postage/Mail/Copy/Printing Svc	2	-	224	3,499	3,604	3,712	3,823	3,938	4,056	4,178	4,303	4,432	4,565
Membership Dues & Subscription	2	1,312	390	3,200	3,296	3,395	3,497	3,602	3,710	3,821	3,936	4,054	4,175
Conferences - Training	2	8,755	3,806	7,000	7,210	7,426	7,649	7,879	8,115	8,358	8,609	8,867	9,133
Rentals - Equipment/Space	2	5,206	4,996	13,000	13,390	13,792	14,205	14,632	15,071	15,523	15,988	16,468	16,962
Office Supplies	2	1,660	4,778	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610
Operating Supplies	2	15,671	37,392	33,200	34,196	35,222	36,279	37,367	38,488	39,643	40,832	42,057	43,318
Water Meters	7	98,208	104,845	100,000	103,500	107,123	110,872	114,752	118,769	122,926	127,228	131,681	136,290
Util-PhonesPgrsInternetCable	5	3,960	4,825	4,100	4,331	4,575	4,833	5,106	5,394	5,698	6,019	6,359	6,717
Major Equipment	2	15,000	54,531	-	-	-	-	-	-	-	-	-	-
PERS Retirement	3	69,004	73,933	74,481	77,088	79,786	82,578	85,468	88,460	91,556	94,760	98,077	101,510
Subtotal -Water Distribution		**$ 991,284**	**$ 1,013,187**	**$ 1,536,149**	**$ 1,586,987**	**$ 1,639,520**	**$ 1,693,803**	**$ 1,749,895**	**$ 1,807,858**	**$ 1,867,753**	**$ 1,929,647**	**$ 1,993,606**	**$ 2,059,700**

TABLE 8 : OPERATING EXPENSE FORECAST, cont.[1]

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
50 - Public Works													
810 - Non Departmental													
Wages - Full time	3	$ 113,357	$ 136,471	$ 128,293	$ 132,783	$ 137,430	$ 142,240	$ 147,219	$ 152,371	$ 157,704	$ 163,224	$ 168,937	$ 174,850
Wages - Overtime	3	954	178	-	-	-	-	-	-	-	-	-	-
Allowances	3	1,811	1,920	1,920	1,987	2,057	2,129	2,203	2,280	2,360	2,443	2,528	2,617
Health Insurance	3	18,856	20,841	21,244	21,987	22,757	23,553	24,378	25,231	26,114	27,028	27,974	28,953
Cafeteria Plan Section 125	3	4,227	4,452	4,312	4,463	4,619	4,781	4,948	5,122	5,301	5,486	5,678	5,877
Social Security & Medicare	3	1,747	2,069	2,038	2,109	2,183	2,259	2,338	2,420	2,505	2,592	2,683	2,777
Worker Comp Insurance	3	7,901	7,096	9,825	10,169	10,525	10,893	11,274	11,669	12,077	12,500	12,937	13,390
OPEB	3	80,835	(8,807)	47,537	49,201	50,923	52,705	54,550	56,459	58,435	60,480	62,597	64,788
Pension Expense	3	(223,456)	37,354	-	-	-	-	-	-	-	-	-	-
Benefits - Other	3	1,371	1,421	-	-	-	-	-	-	-	-	-	-
Info Tech Support Services	2	-	-	33,414	34,416	35,449	36,512	37,608	38,736	39,898	41,095	42,328	43,598
Professional Services	2	42,173	47,333	66,586	68,584	70,641	72,760	74,943	77,191	79,507	81,892	84,349	86,880
Postage/Mail/Copy/Printing Svc	2	-	9,000	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829
Bad Debt Expense	2	(11,826)	14,649	-	-	-	-	-	-	-	-	-	-
Membership Dues & Subscription	2	425	767	2,600	2,678	2,758	2,841	2,926	3,014	3,105	3,198	3,294	3,392
Regulatory Compliance Permits	2	-	-	-	-	-	-	-	-	-	-	-	-
Services - Cash for Grass	2	17,463	8,815	30,000	30,900	31,827	32,782	33,765	34,778	35,822	36,896	38,003	39,143
Services - Toilet Rebates	9	5,300	5,800	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Services - Washer Rebates	2	-	-	-	-	-	-	-	-	-	-	-	-
Office Supplies	2	-	-	500	515	530	546	563	580	597	615	633	652
Operating Supplies	2	750	637	-	-	-	-	-	-	-	-	-	-
Utilities - Water	5	2,155	2,563	2,500	2,641	2,790	2,947	3,113	3,289	3,474	3,670	3,877	4,096
City of Napa	8	178,426	305,944	278,000	283,560	289,231	295,016	300,916	306,934	313,073	319,335	325,721	332,236
North Bay Aqueduct	8	2,142,501	2,330,665	3,203,000	3,267,060	3,332,401	3,399,049	3,467,030	3,536,371	3,607,098	3,679,240	3,752,825	3,827,881
City of Vallejo	8	1,059,922	1,398,799	121,218	123,642	126,115	128,638	131,210	133,834	136,511	139,241	142,026	144,867
AC Recycled Water	2	10,000	49,405	-	-	-	-	-	-	-	-	-	-
Depreciation	2	1,282,037	1,274,074	-	-	-	-	-	-	-	-	-	-
Transfer to Gen Fund Support Sv	2	766,412	942,449	1,124,203	1,157,929	1,192,667	1,228,447	1,265,300	1,303,259	1,342,357	1,382,628	1,424,107	1,466,830
Transfer To General Fund - Oth	9	57,195	319,586	160,000	100,000	-	-	-	-	-	-	-	-
Retiree Health Benefits	3	60,100	53,849	74,980	77,605	80,321	83,132	86,042	89,053	92,170	95,396	98,735	102,191
PERS Retirement	3	17,037	18,820	16,257	16,826	17,415	18,024	18,655	19,308	19,984	20,683	21,407	22,156
ISF - Bldg Maint	2	77,400	218,948	325,219	334,976	345,025	355,376	366,037	377,018	388,328	399,978	411,978	424,337
ISF - Fleet	2	238,950	178,624	354,173	364,798	375,742	387,014	398,625	410,584	422,901	435,588	448,656	462,115
ISF - Info Tech	2	18,000	44,795	54,709	56,350	58,041	59,782	61,575	63,423	65,325	67,285	69,304	71,383
ISF - Legal Services	2	28,800	21,603	96,582	99,479	102,464	105,538	108,704	111,965	115,324	118,784	122,347	126,018
Subtotal - Non Departmental		**$ 6,000,824**	**$ 7,450,121**	**$ 6,175,109**	**$ 6,260,838**	**$ 6,310,276**	**$ 6,463,522**	**$ 6,620,677**	**$ 6,781,846**	**$ 6,947,136**	**$ 7,116,658**	**$ 7,290,526**	**$ 7,468,856**
TOTAL: WATER OPERATIONS EXPENSES		**$ 8,475,241**	**$ 10,251,496**	**$ 9,799,447**	**$ 11,204,947**	**$ 10,178,178**	**$ 10,459,378**	**$ 10,748,792**	**$ 11,046,673**	**$ 11,353,281**	**$ 11,668,886**	**$ 11,993,765**	**$ 12,328,206**

TABLE 9 : OPERATING EXPENSE FORECAST, cont.[1] *(for information only)*

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
CAPITAL PROJECTS													
Intra-fund Transfer Out Water	7	$ 89,642	$ 85,675	$ 2,038,185	$ 2,109,521	$ 2,183,355	$ 2,259,772	$ 2,338,864	$ 2,420,724	$ 2,505,450	$ 2,593,141	$ 2,683,900	$ 2,777,837
Intra-fund Transfer Out Recycled	7	-	-	120,000	124,200	128,547	133,046	137,703	142,522	147,511	152,674	158,017	163,548
Misc. Contractual Services (Dept 450)	2	400,000	50,000	-	-	-	-	-	-	-	-	-	-
Transfer Cap Projs Fund - Gen	7	-	-	596,000	616,860	638,450	660,796	683,924	707,861	732,636	758,278	784,818	812,287
Transfer Cap Proj - Water	7	-	-	-	-	-	-	-	-	-	-	-	-
Transfer Cap Proj - Wastewater	7	(155,893)	412,280	250,000	258,750	267,806	277,179	286,881	296,922	307,314	318,070	329,202	340,724
Transfer Cap Proj - Recycled	7	-	-	917,509	949,622	982,859	1,017,259	1,052,863	1,089,713	1,127,853	1,167,328	1,208,185	1,250,471
Subtotal - Capital Projects		**$ 333,749**	**$ 547,955**	**$ 3,921,694**	**$ 4,058,954**	**$ 4,201,017**	**$ 4,348,053**	**$ 4,500,235**	**$ 4,657,743**	**$ 4,820,764**	**$ 4,989,490**	**$ 5,164,123**	**$ 5,344,867**

TABLE 10 : FORECASTING ASSUMPTIONS

INFLATION FACTORS[2]	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer Growth[3]	1	--	1.80%	1.80%	1.80%	1.70%	1.70%	1.70%	1.70%	1.70%	1.60%	1.60%	1.60%
General Cost Inflation[4]	2	--	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Labor Cost Inflation[5]	3	--	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Energy[6]	4	--	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%
Electricty[7]	5	--	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%
Fuel & Utilities[8]	6	--	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%
Construction Cost Inflation[9]	7	--	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Water Purchases[10]	8	--	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
No Escalation	9	--	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Revenue and expenses for FY 2021/22 through FY 2023/24 provided by the City. Revenues and expenses for all other years are escalated based on the forecasting assumptions located in Table 10. Source files: *Fund 510 Water Operations.xlsx* , *FY 22 Fund 520 Water Cap Revenue Detailed Trial Balance* , *FY 23 Fund 520 Water Cap Revenue Detailed Trial Balance, & REV EXP ACTUALS - FY22 and FY23_NBS.*
2. Expenses are inflated each year by the following annual inflation factor categories.
3. Customer growth is based on service area population growth through FY 2039/40. Source file: *American Canyon 2015 UWMP.pdf* , page 26.
4. General cost inflation is based on the 5-year average annual change in the Consumer Price Index for all Urban Consumers in the San Francisco-Oakland-Hayward, CA area.
5. Labor cost inflation is based on the 5-year average annual change in the Quarterly Census of Employment and Wages for San Francisco County, CA.
6. Energy cost inflation is based on the 5-year average annual change in the Consumer Price Index for all Urban Consumers in the San Francisco-Oakland-Hayward, CA area.
7. Electricity cost inflation is based on the 5-year average change in the Consumer Price Index for San Francisco County.
8. Fuel & Utilities cost inflation is based on the 5-year average annual change in the Consumer Price Index - Average Price Data for Fuels and related products and power. This factor is used for utility costs other than electricity.
9. Construction cost Inflation is the 10-year average change in the Construction Cost Index for 2012-2022. Source: Engineering News Record website (*http://enr.construction.com*).
10. Water purchases growth is estimated at 2% annually. Source file: *Water cost projections.xlsx* .

TABLE 11 : CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST	Actuals	Actuals	5-Year Projected Rate Period					Projected				
Funding Sources:	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Use of Capacity Fee Reserves	-	-	1,630,856	2,854,016	2,471,905	2,165,153	1,919,564	1,723,628	1,568,012	1,444,951	1,348,341	1,273,232
SRF Loan Funding	-	-	-	-	-	-	-	-	-	-	-	-
Use of New Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Use of Capital Rehabilitation and Replacement Reserve	-	-	-	38,578	-	-	-	-	-	-	-	-
Rate Revenue	251,795	2,790,541	4,566,877	1,523,075	1,565,040	754,328	665,707	952,128	1,201,396	1,421,386	1,618,317	1,797,260
Total Sources of Capital Funds	**$ 251,795**	**$ 2,790,541**	**$ 6,197,733**	**$ 4,415,669**	**$ 4,036,946**	**$ 2,919,481**	**$ 2,585,271**	**$ 2,675,756**	**$ 2,769,407**	**$ 2,866,337**	**$ 2,966,658**	**$ 3,070,492**
Uses of Capital Funds:												
Total Project Costs	$ 251,795	$ 2,790,541	$ 6,197,733	$ 4,415,669	$ 4,036,946	$ 2,919,481	$ 2,585,271	$ 2,675,756	$ 2,769,407	$ 2,866,337	$ 2,966,658	$ 3,070,492
Capital Funding Surplus (Deficiency)	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***

CAPITAL IMPROVEMENT PROGRAM FUNDING OPTIONS

Capital Improvement Program Funding Choice	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Effective Annual Funding Amount	$ 251,795	$ 2,790,541	$ 6,197,733	$ 4,415,669	$ 4,036,946	$ 2,919,481	$ 2,585,271	$ 2,675,756	$ 2,769,407	$ 2,866,337	$ 2,966,658	$ 3,070,492

CAPITAL IMPROVEMENT PROGRAM

TABLE 12 : CAPITAL IMPROVEMENT PROGRAM COSTS (*in Current-Year Dollars*)[1]

Project No.	Description	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Capital Projects [2]													
TR23-0100	Knightsbridge Rehab and Water Main Replacement	$ -	$ -	$ 505,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TR24-0300	ARPA Rancho Del Mar Paving and Utility Improvements	-	-	1,162,000	-	-	-	-	-	-	-	-	-
WW16-0300	SCADA		-	250,000	-	-	-	-	-	-	-	-	-
UM20-0100	Engi Energy Services Contract Budget Expense Remaining	162,280	-	-	-	-	-	-	-	-	-	-	-
WA24-0100	Rio Del Mar Water Main Upgrade	-	-	45,000	360,000	-	-	-	-	-	-	-	-
WA24-0200	North Kelly Road Water Main	-	-	-	145,000	-	-	-	-	-	-	-	-
WA25-0100	Hanna Drive Water Main Repl.	-	-	-	-	550,000	-	-	-	-	-	-	-
WA26-0100	Northampton Water Main Repl.	-	-	-	-	-	650,000	-	-	-	-	-	-
NEW	Water Treatment Plant Shop	-	-	75,000	-	-	-	-	-	-	-	-	-
NEW	WTP Filter Media Replacement and Underdrain Repair	-	-	350,000	-	-	-	-	-	-	-	-	-
NEW	Parks - Irrigation Controller Upgrade (RW)	-	-	200,000	-	-	-	-	-	-	-	-	-
NEW	Solids Handling at WTP	-	-	100,000	900,000	-	-	-	-	-	-	-	-
Master Plan Projects - Potable Water [3]													
W1	Zone 1 Storage	$ -	$ -	$ 343,000	$ 343,000	$ 343,000	$ 343,000	$ -	$ -	$ -	$ -	$ -	$ -
W2	Annual Water Main Replacements	-	1,500,000	1,455,000	995,000	950,000	850,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
W3	Annual Water Service Replacements	81,000	81,000	81,000	81,000	-	-	-	-	-	-	-	-
W4	High Pressure Zone System	-	1,024,000	1,024,000	1,024,000	1,024,000	-	-	-	-	-	-	-
W8	Replace Transmission Mains Near SR29	-	-	-	-	196,000	196,000	196,000	196,000	196,000	196,000	196,000	196,000
W9	Replace Oat Hill Transmission Main	-	-	-	-	128,000	128,000	128,000	128,000	128,000	128,000	128,000	128,000
W11	Fire Flows in Hess Drive	-	-	-	-	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000
W13	Main Zone Reliability Improvements	-	-	-	-	129,000	129,000	129,000	129,000	129,000	129,000	129,000	129,000
Estimated Future Projects													
Future Projects[4]		-	-	-	-	-	-	-	-	-	-	-	-
Total: CIP Program Costs *(Future-Year Dollars)*		**$ 243,280**	**$ 2,605,000**	**$ 5,590,000**	**$ 3,848,000**	**$ 3,399,000**	**$ 2,375,000**	**$ 2,032,000**	**$ 2,032,000**	**$ 2,032,000**	**$ 2,032,000**	**$ 2,032,000**	**$ 2,032,000**

TABLE 13 : CAPITAL IMPROVEMENT PROGRAM COSTS (*in Future-Year Dollars*)[5]

Project No.	Description	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Capital Projects [2]													
TR23-0100	Knightsbridge Rehab and Water Main Replacement	$ -	$ -	$ 559,903	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TR24-0300	ARPA Rancho Del Mar Paving and Utility Improvements	-	-	1,288,330	-	-	-	-	-	-	-	-	-
WW16-0300	SCADA	-	-	277,179	-	-	-	-	-	-	-	-	-
UM20-0100	Engi Energy Services Contract Budget Expense Remaining	167,960	-	-	-	-	-	-	-	-	-	-	-
WA24-0100	Rio Del Mar Water Main Upgrade	-	-	49,892	413,108	-	-	-	-	-	-	-	-
WA24-0200	North Kelly Road Water Main	-	-	-	166,391	-	-	-	-	-	-	-	-
WA25-0100	Hanna Drive Water Main Repl.	-	-	-	-	653,227	-	-	-	-	-	-	-
WA26-0100	Northampton Water Main Repl.	-	-	-	-	-	799,016	-	-	-	-	-	-
NEW	Water Treatment Plant Shop	-	-	83,154	-	-	-	-	-	-	-	-	-
NEW	WTP Filter Media Replacement and Underdrain Repair	-	-	388,051	-	-	-	-	-	-	-	-	-
NEW	Parks - Irrigation Controller Upgrade (RW)	-	-	221,744	-	-	-	-	-	-	-	-	-
NEW	Solids Handling at WTP	-	-	110,872	1,032,771	-	-	-	-	-	-	-	-
Master Plan Projects - Potable Water [3]													
W1	Zone 1 Storage	$ -	$ -	$ 380,290	$ 393,600	$ 407,376	$ 421,635	$ -	$ -	$ -	$ -	$ -	$ -
W2	Annual Water Main Replacements	-	1,606,838	1,613,185	1,141,785	1,128,302	1,044,867	1,908,419	1,975,214	2,044,346	2,115,898	2,189,955	2,266,603
W3	Annual Water Service Replacements	83,835	86,769	89,806	92,949	-	-	-	-	-	-	-	-
W4	High Pressure Zone System	-	1,096,934	1,135,327	1,175,064	1,216,191	-	-	-	-	-	-	-
W8	Replace Transmission Mains Near SR29	-	-	-	-	232,787	240,934	249,367	258,095	267,128	276,477	286,154	296,169
W9	Replace Oat Hill Transmission Main	-	-	-	-	152,024	157,345	162,852	168,552	174,451	180,557	186,876	193,417
W11	Fire Flows in Hess Drive	-	-	-	-	93,827	97,111	100,510	104,028	107,669	111,437	115,338	119,374
W13	Main Zone Reliability Improvements	-	-	-	-	153,212	158,574	164,124	169,868	175,814	181,967	188,336	194,928
Estimated Future Projects													
Future Projects[4]		-	-	-	-	-	-	-	-	-	-	-	-
Total: CIP Program Costs *(Future-Year Dollars)*		**$ 251,795**	**$ 2,790,541**	**$ 6,197,733**	**$ 4,415,669**	**$ 4,036,946**	**$ 2,919,481**	**$ 2,585,271**	**$ 2,675,756**	**$ 2,769,407**	**$ 2,866,337**	**$ 2,966,658**	**$ 3,070,492**

TABLE 14 : FORECASTING ASSUMPTIONS

Economic Variables	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Annual Construction Cost Inflation, Per Engineering News Record[6]	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*
Cumulative Construction Cost Multiplier from FY 2021/22	*1.04*	*1.07*	*1.11*	*1.15*	*1.19*	*1.23*	*1.27*	*1.32*	*1.36*	*1.41*	*1.46*	*1.51*

1. Capital project costs were provided by City Staff in source file: *Water Projects.pdf.*
2. Capital projects costs for FY 2021/22 and FY 2022/23 are from source files: 11. *CIP Budget vs Expense Report FY 2021-2022 through Oct 2021.pdf* & *Water FY 2023-2027.xlsx* .
3. The City's Water Master Plan projects were scheduled to begin in 2016; however, the study only includes costs from FY 2021/22 through FY 2034/35. Source file: *2016 Potable Water Master Plan.pdf* , page 53.
4. Future project costs beyond FY 2034/35 are calculated based on the City's 10-year average.
5. Capital improvement projects are inflated to future year estimated costs with ENR CCI for the region. Source: Engineering News Record website (*http://enr.construction.com*).
6. For reference purposes, the annual Construction Cost Inflation percentage is the 10-year average change in the Construction Cost Index for September 2012-2022 (3.5%). Source: Engineering News Record website *(http://enr.construction.com).*

TABLE 15 : EXISTING DEBT OBLIGATIONS

EXISTING DEBT OBLIGATIONS	Actuals	Actuals	5-Year Projected Rate Period					Projected				
Annual Repayment Schedules:	**FY 2021/22**	**FY 2022/23**	**FY 2023/24**	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**	**FY 2028/29**	**FY 2029/30**	**FY 2030/31**	**FY 2031/32**	**FY 2032/33**
SWRCB (California Department of Water Resources): Contract No. D-GLC 46[1]												
Principal Payment	$ 70,382	$ 72,142	$ 73,946	$ 75,794	$ 77,689	$ 79,631	$ 53,204	$ -	$ -	$ -	$ -	$ -
Interest Payment	24,084	22,324	20,521	18,672	16,777	14,835	12,844	-	-	-	-	-
Subtotal: Annual Debt Service	**$ 94,466**	**$ 94,466**	**$ 94,466**	**$ 94,466**	**$ 94,466**	**$ 94,466**	**$ 66,048**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Coverage Requirement ($-Amnt above annual payment)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Requirement[2]	$ 71,827	$ 72,068	$ 72,053	$ 71,580	$ 70,175	$ 66,417	$ 53,204	$ -	$ -	$ -	$ -	$ -
Banc of America Public Capital Corp Agreement (ENGIE) - Loan Amount $5,209,209[3]												
Principal Payment	$ 5,520	$ 66,788	$ 63,992	$ 68,673	$ 73,583	$ 75,042	$ 82,720	$ 88,430	$ 78,658	$ 84,010	$ 89,620	$ 94,771
Interest Payment	23,749	22,854	21,682	20,498	19,229	17,900	16,494	14,966	13,463	12,011	10,462	8,815
Subtotal: Annual Debt Service	**$ 29,269**	**$ 89,642**	**$ 85,674**	**$ 89,171**	**$ 92,812**	**$ 92,941**	**$ 99,214**	**$ 103,396**	**$ 92,122**	**$ 96,021**	**$ 100,082**	**$ 103,586**
Coverage Requirement ($-Amnt above annual payment)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Requirement (total fund balance)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sites Reservoir Project - Debt Amount $20,586,000[4]												
Principal Payment	$ 400,000	$ 560,000	$ 640,000	$ 640,000	$ 1,281,000	$ 2,336,000	$ 2,849,000	$ 3,166,000	$ 3,195,000	$ 3,131,000	$ 3,028,000	$ -
Interest Payment	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Annual Debt Service	**$ 400,000**	**$ 560,000**	**$ 640,000**	**$ 640,000**	**$ 1,281,000**	**$ 2,336,000**	**$ 2,849,000**	**$ 3,166,000**	**$ 3,195,000**	**$ 3,131,000**	**$ 3,028,000**	**$ -**
Coverage Requirement ($-Amnt above annual payment)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Requirement (total fund balance)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Grand Total: Existing Annual Debt Service	**$ 523,735**	**$ 744,109**	**$ 820,140**	**$ 823,637**	**$ 1,468,278**	**$ 2,523,408**	**$ 3,014,261**	**$ 3,269,396**	**$ 3,287,122**	**$ 3,227,021**	**$ 3,128,082**	**$ 103,586**
Grand Total: Existing Annual Coverage Requirement	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Grand Total: Existing Debt Reserve Target	**$ 71,827**	**$ 72,068**	**$ 72,053**	**$ 71,580**	**$ 70,175**	**$ 66,417**	**$ 53,204**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

TABLE 16 : WATER UTILITY EXISTING DEBT OBLIGATIONS, cont.

EXISTING DEBT OBLIGATIONS	Actuals	Actuals	5-Year Projected Rate Period					Projected				
Annual Repayment Schedules:	**FY 2021/22**	**FY 2022/23**	**FY 2023/24**	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**	**FY 2028/29**	**FY 2029/30**	**FY 2030/31**	**FY 2031/32**	**FY 2032/33**
Interfund Loans (For Information Only)												
Water Operations to Water Capacity Fund												
Advance from Water Operations 510 to Water Capacity 520												
Original Loan Amount (June 1, 2008)	**$ 1,000,000**											
Accrued Interest (LAIF Rate + 2%)	**132,325**											
Annual Debt Service[5]		*$126,058*	*$ 126,058*	*$ 126,058*	*$ 126,058*	*$ 126,058*	*$ 126,058*	*$ 126,058*	*$ 126,058*	*$ 126,058*	*$ 126,058*	**$** -
Water Operations to Recycled Water Fund												
Advance from Water Operations 510 to Recycled Water Operations 580												
Original Loan Amount (September 21, 2021)	**$ 128,189**											
Accrued Interest (LAIF Rate + 2%)	**11,706**											
Annual Debt Service[6]					*$ 5,421*	*$ 5,421*	*$ 5,421*	*$ 5,421*	*$ 5,421*	*$ 5,421*	*$ 5,421*	*$ 5,421*
Water Operations to Recycled Water Fund												
Advance from Water Operations 510 to Recycled Water Operations 580												
Original Loan Amount (June 20, 2023)	**$ 1,136,140**											
Accrued Interest (LAIF Rate + 2%)	**981**											
Annual Debt Service[7]			*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*

1. Construction loan issued by the State under the Davis-Grunsky Act. Source files: *5 - Debt Service Schedules.xlsx* & *6 - Davis Grunsky Agreement $2,050,000 Loan Dec 9 1974.pdf* .
2. The City is required to maintain a debt reserve fund equal to the average annual payment of the total outstanding loan balance. Source file: *6 - Davis Grunsky Agreement $2,050,000 Loan Dec 9 1974.pdf* , pp. 11-12 .
3. Equipment lease/purchase loan issued by the Banc of America Public Capital Corp to cover energy efficiency projects to City facilities. Water utility portion is 24.64%, or $1,283,549.10 (Principal). Source file: *6 - ENGIE Closing Documents.pdf* .
4. Debt service for the City's portion of costs related to the Sites Reservoir Project. Source files: Email from City staff dated 9-19-2022 & *Sites-2021-Draft-Plan-of-Finance.pdf* , Table 6A, page 27.
5. Funds advanced to purchase water rights. Repayment scheduled to begin FY 2022/23.
6. Funds advanced for Green Island Recycled Waterline Project. Repayment scheduled to begin FY 2025/26.
7. Funds advanced for the Recycled Water Expansion Project, Project no. RW17-0100. Repayment scheduled to begin FY 2023/24.

TABLE 17 : EXISTING ANNUAL DEBT OBLIGATIONS TO BE SATISFIED BY WATER RATES

Annual Obligations	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Existing Annual Debt Service	*$ 523,735*	*$ 744,109*	*$ 820,140*	*$ 823,637*	*$ 1,468,278*	*$ 2,523,408*	*$ 3,014,261*	*$ 3,269,396*	*$ 3,287,122*	*$ 3,227,021*	*$ 3,128,082*	*$ 103,586*
Existing Annual Coverage Requirement	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Existing Debt Reserve Target	*$ 71,827*	*$ 72,068*	*$ 72,053*	*$ 71,580*	*$ 70,175*	*$ 66,417*	*$ 53,204*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*

TABLE 18 : CURRENT WATER RATE SCHEDULE

Water Rate Schedule[1]	Current Rates Jan. 1, 2023
Monthly Fixed Service Charges	
Residential Use	$26.56
Multi-Family, Commercial and Landscape	
< 1" meter	$26.56
1" meter (Residential)	$26.56
1" meter (Commercial)	$44.42
1 1/2" meter	$88.75
2" meter	$141.99
3" meter	$283.98
4" meter	$443.74
6" meter	$887.48
8" meter	$1,420.06
Private Fire Protection	$13.28
Temporary Hydrant Meters	$283.98
Raw Water	
1" meter	$44.42
2" meter	$141.99
4" meter	$443.74
6" meter	$887.48
Variable Rates for All Water Consumed (in $/hcf) [2]	
Residential Use	
Tier 1 (0 - 10 units)	$7.54
Tier 2 (> 10 units)	$8.15
Multi-Family, Commercial and Landscape	$7.72
Private Fire Protection	$3.86
Temporary Hydrant Meters	
Potable	$7.72
Recycled	$0.90
Raw Water	$3.44

1. Rates available on the City website. Source: *https://www.cityofamericancanyon.org* .
2. HCF = hundred cubic feet (748 gallons).

TABLE 19 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 2023/24	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
Fund 510 - Water Operations									
560 - Water Treatment Plant									
Wages - Full Time	$ 612,238	$ 306,119	$ 223,160	$ 61,224	$ 21,736	50.0%	36.4%	10.0%	3.6%
Wages - Overtime	9,000	4,500	3,280	900	320	50.0%	36.4%	10.0%	3.6%
Health Insurance	95,546	47,773	34,826	9,555	3,392	50.0%	36.4%	10.0%	3.6%
Health-In-Lieu	9,690	4,845	3,532	969	344	50.0%	36.4%	10.0%	3.6%
Cafeteria Plan Section 125	24,587	12,294	8,962	2,459	873	50.0%	36.4%	10.0%	3.6%
Social Security & Medicare	9,374	4,687	3,417	937	333	50.0%	36.4%	10.0%	3.6%
Worker Comp Insurance	49,859	24,930	18,174	4,986	1,770	50.0%	36.4%	10.0%	3.6%
Benefits - Other	1,106	553	403	111	39	50.0%	36.4%	10.0%	3.6%
Info Tech Support Services	116,200	58,100	42,355	11,620	4,125	50.0%	36.4%	10.0%	3.6%
Professional Services	366,400	183,200	133,552	36,640	13,008	50.0%	36.4%	10.0%	3.6%
Misc Contractual Services	59,200	29,600	21,578	5,920	2,102	50.0%	36.4%	10.0%	3.6%
General Repairs & Maint	53,800	26,900	19,610	5,380	1,910	50.0%	36.4%	10.0%	3.6%
Advertising	6,000	3,000	2,187	600	213	50.0%	36.4%	10.0%	3.6%
Postage/Mail/Copy/Printing Svc	2,000	1,000	729	200	71	50.0%	36.4%	10.0%	3.6%
Membership Dues & Subscription	3,200	1,600	1,166	320	114	50.0%	36.4%	10.0%	3.6%
Conferences - Training	13,500	6,750	4,921	1,350	479	50.0%	36.4%	10.0%	3.6%
Rentals - Equipment/Space	3,700	1,850	1,349	370	131	50.0%	36.4%	10.0%	3.6%
Office Supplies	25,000	12,500	9,112	2,500	888	50.0%	36.4%	10.0%	3.6%
Operating Supplies	488,400	244,200	178,021	48,840	17,339	50.0%	36.4%	10.0%	3.6%
Water Plant Membrane Filters	-	-	-	-	-	50.0%	36.4%	10.0%	3.6%
Utilities - Gas & Elec	73,000	36,500	26,608	7,300	2,592	50.0%	36.4%	10.0%	3.6%
Util-Phonespgrsinternetcable	5,800	2,900	2,114	580	206	50.0%	36.4%	10.0%	3.6%
Pers Retirement	60,588	30,294	22,084	6,059	2,151	50.0%	36.4%	10.0%	3.6%
Subtotal - Water Treatment Plant	**$ 2,088,189**	**$ 1,044,094**	**$ 761,140**	**$ 208,819**	**$ 74,135**	**50.0%**	**36.4%**	**10.0%**	**3.6%**

TABLE 20 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS, cont.

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 2023/24	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
Fund 510 - Water Operations									
565 - Water Distribution									
Wages - Full Time	$ 544,808	$ 272,404	$ 198,581	$ 54,481	$ 19,342	50.0%	36.4%	10.0%	3.6%
Wages - Overtime	3,000	1,500	1,093	300	107	50.0%	36.4%	10.0%	3.6%
Health Insurance	110,792	55,396	40,384	11,079	3,933	50.0%	36.4%	10.0%	3.6%
Cafeteria Plan Section 125	27,459	13,730	10,009	2,746	975	50.0%	36.4%	10.0%	3.6%
Social Security & Medicare	8,298	4,149	3,025	830	295	50.0%	36.4%	10.0%	3.6%
Worker Comp Insurance	58,411	29,205	21,291	5,841	2,074	50.0%	36.4%	10.0%	3.6%
Benefits - Other	1,901	951	693	190	67	50.0%	36.4%	10.0%	3.6%
Info Tech Support Services	84,600	42,300	30,837	8,460	3,003	50.0%	36.4%	10.0%	3.6%
Professional Services	52,000	26,000	18,954	5,200	1,846	50.0%	36.4%	10.0%	3.6%
Misc Contractual Services	9,300	4,650	3,390	930	330	50.0%	36.4%	10.0%	3.6%
General Repairs & Maint	375,100	187,550	136,723	37,510	13,317	50.0%	36.4%	10.0%	3.6%
Reimbursable Repairs	20,000	10,000	7,290	2,000	710	50.0%	36.4%	10.0%	3.6%
Postage/Mail/Copy/Printing Svc	3,499	1,750	1,275	350	124	50.0%	36.4%	10.0%	3.6%
Membership Dues & Subscription	3,200	1,600	1,166	320	114	50.0%	36.4%	10.0%	3.6%
Conferences - Training	7,000	3,500	2,551	700	249	50.0%	36.4%	10.0%	3.6%
Rentals - Equipment/Space	13,000	6,500	4,738	1,300	462	50.0%	36.4%	10.0%	3.6%
Office Supplies	2,000	1,000	729	200	71	50.0%	36.4%	10.0%	3.6%
Operating Supplies	33,200	16,600	12,101	3,320	1,179	50.0%	36.4%	10.0%	3.6%
Water Meters	100,000	50,000	36,450	10,000	3,550	50.0%	36.4%	10.0%	3.6%
Util-Phonespgrsinternetcable	4,100	2,050	1,494	410	146	50.0%	36.4%	10.0%	3.6%
Pers Retirement	74,481	37,240	27,148	7,448	2,644	50.0%	36.4%	10.0%	3.6%
Subtotal -Water Distribution	**$ 1,536,149**	**$ 768,074**	**$ 559,923**	**$ 153,615**	**$ 54,537**	**50.0%**	**36.4%**	**10.0%**	**3.6%**

TABLE 21 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS, cont.

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 2023/24	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
50 - Public Works									
810 - Non Departmental									
Wages - Full Time	$ 128,293	$ 64,146	$ 46,762	$ 12,829	$ 4,555	50.0%	36.4%	10.0%	3.6%
Allowances	1,920	960	700	192	68	50.0%	36.4%	10.0%	3.6%
Health Insurance	21,244	10,622	7,743	2,124	754	50.0%	36.4%	10.0%	3.6%
Cafeteria Plan Section 125	4,312	2,156	1,572	431	153	50.0%	36.4%	10.0%	3.6%
Social Security & Medicare	2,038	1,019	743	204	72	50.0%	36.4%	10.0%	3.6%
Worker Comp Insurance	9,825	4,912	3,581	982	349	50.0%	36.4%	10.0%	3.6%
Opeb	47,537	23,769	17,327	4,754	1,688	50.0%	36.4%	10.0%	3.6%
Info Tech Support Services	33,414	16,707	12,179	3,341	1,186	50.0%	36.4%	10.0%	3.6%
Professional Services	66,586	33,293	24,270	6,659	2,364	50.0%	36.4%	10.0%	3.6%
Postage/Mail/Copy/Printing Svc	6,000	3,000	2,187	600	213	50.0%	36.4%	10.0%	3.6%
Membership Dues & Subscription	2,600	1,300	948	260	92	50.0%	36.4%	10.0%	3.6%
Services - Cash For Grass	30,000	15,000	10,935	3,000	1,065	50.0%	36.4%	10.0%	3.6%
Services - Toilet Rebates	10,000	5,000	3,645	1,000	355	50.0%	36.4%	10.0%	3.6%
Office Supplies	500	250	182	50	18	50.0%	36.4%	10.0%	3.6%
Utilities - Water	2,500	1,250	911	250	89	50.0%	36.4%	10.0%	3.6%
City Of Napa	278,000	278,000	-	-	-	100.0%	0.0%	0.0%	0.0%
North Bay Aqueduct	3,203,000	3,203,000	-	-	-	100.0%	0.0%	0.0%	0.0%
City Of Vallejo	121,218	121,218	-	-	-	100.0%	0.0%	0.0%	0.0%
Transfer To Gen Fund Support Sv	1,124,203	562,102	409,770	112,420	39,912	50.0%	36.4%	10.0%	3.6%
Transfer To General Fund - Oth	160,000	80,000	58,320	16,000	5,680	50.0%	36.4%	10.0%	3.6%
Retiree Health Benefits	74,980	37,490	27,330	7,498	2,662	50.0%	36.4%	10.0%	3.6%
Pers Retirement	16,257	8,128	5,926	1,626	577	50.0%	36.4%	10.0%	3.6%
Isf - Bldg Maint	325,219	162,610	118,542	32,522	11,546	50.0%	36.4%	10.0%	3.6%
Isf - Fleet	354,173	177,087	129,095	35,417	12,574	50.0%	36.4%	10.0%	3.6%
Isf - Info Tech	54,709	27,355	19,941	5,471	1,942	50.0%	36.4%	10.0%	3.6%
Isf - Legal Services	96,582	48,291	35,204	9,658	3,429	50.0%	36.4%	10.0%	3.6%
Subtotal - Non Departmental	**$ 6,175,109**	**$ 4,888,664**	**$ 937,813**	**$ 257,289**	**$ 91,343**	**79.2%**	**15.2%**	**4.2%**	**1.5%**
Total: Water Operations Expenses	**$ 9,799,447**	**$ 6,700,833**	**$ 2,258,877**	**$ 619,723**	**$ 220,015**	**68.4%**	**23.1%**	**6.3%**	**2.2%**
TOTAL: WATER OPERATIONS EXPENSES	**$ 9,799,447**	**$ 6,700,833**	**$ 2,258,877**	**$ 619,723**	**$ 220,015**	**68.4%**	**23.1%**	**6.3%**	**2.2%**

TABLE 22 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS, cont.

Classification of Expenses, continued									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 2023/24	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
Debt Service Payments									
Outstanding Debt	$ 820,140	$ -	$ 820,140	$ -	$ -	0.0%	100.0%	0.0%	0.0%
New Debt Issue - SRF Loan	-	-	-	-	-	0.0%	100.0%	0.0%	0.0%
New Debt Issue - Revenue Bond	-	-	-	-	-	0.0%	100.0%	0.0%	0.0%
Total Debt Service Payments	**$ 820,140**	**$ -**	**$ 820,140**	**$ -**	**$ -**	**0.0%**	**100.0%**	**0.0%**	**0.0%**
Capital Expenditures									
Rate Funded Capital Expenses	$ 4,566,877	$ -	$ 4,566,877	$ -	$ -	0.0%	100.0%	0.0%	0.0%
TOTAL REVENUE REQUIREMENTS	**$ 15,186,464**	**$ 6,700,833**	**$ 7,645,894**	**$ 619,723**	**$ 220,015**	**44.1%**	**50.3%**	**4.1%**	**1.4%**
Less: Non-Rate Revenues									
Other Revenue									
Grant - State/Local	$ -	$ -	$ -	$ -	$ -	44.1%	50.3%	4.1%	1.4%
Interest Earnings	(275,008)	(121,344)	(138,458)	(11,222)	(3,984)	44.1%	50.3%	4.1%	1.4%
Miscellaneous Revenues	(359,300)	(158,537)	(180,896)	(14,662)	(5,205)	44.1%	50.3%	4.1%	1.4%
Late Penalties / Interest	(114,300)	(50,433)	(57,546)	(4,664)	(1,656)	44.1%	50.3%	4.1%	1.4%
Interfund Transfer In (Loan Repayment)	(44,061)	(19,441)	(22,183)	(1,798)	(638)	44.1%	50.3%	4.1%	1.4%
NET REVENUE REQUIREMENTS	**$ 14,393,795**	**$ 6,351,077**	**$ 7,246,811**	**$ 587,376**	**$ 208,531**				
Allocation of Revenue Requirements	**100.0%**	**44.1%**	**50.3%**	**4.1%**	**1.4%**				

TABLE 23 : ADJUSTMENT TO CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Classification of Expenses, continued Adjustments to Classification of Expenses					
Adjustment for Current Rate Level:	**Total**	**(COM)**	**(CAP)**	**(CA)**	**(FP)**
Test Year (FY 2023/24) Target Rate Rev. After Rate Increases	$ 10,291,388				
Projected Rate Revenue at Current Rates	$ 9,441,640				
Test Year (FY 2023/24) Projected Rate Adjustment	9.00%				
Adjusted Net Revenue Req'ts	**$ 10,291,388**	**$ 4,540,943**	**$ 5,181,381**	**$ 419,967**	**$ 149,097**
Percent of Revenue	*100.0%*	*44.1%*	*50.3%*	*4.1%*	*1.4%*

TABLE 24 : NET REVENUE REQUIREMENTS PER COSA RESULTS

Net Revenue Requirements - Per COSA Results 56% Fixed / 44% Variable	Total Rate Revenue Requirements FY 2023/24 *(Excluding Recycled Water)*	Commodity Related Costs			Fixed Costs		
		SWP	Raw Water	Treated Water	Capacity Related Costs	Customer Related Costs	Fire Protection Related Costs
Rate-Design Adjustments to Fixed/Variable %	**100.0%**	**44.1%**			**50.3%**	**4.1%**	**1.4%**
Rate-Design Adjustments to Fixed/Variable ($)	**$10,291,388**	**$3,702,785**	**$515,708**	**$322,450**	**$5,181,381**	**$419,967**	**$149,097**

TABLE 25 : NET REVENUE REQUIREMENTS PER COSA RESULTS - ALTERNATIVE 1 (COSA)

Rate-Design Adjustments to Fixed/Variable %	**100.0%**	**60.0%**			**36.0%**	**2.9%**	**1.0%**
Rate-Design Adjustments to Fixed/Variable ($)	**$10,291,388**	**$5,035,095**	**$701,267**	**$438,471**	**$3,709,181**	**$300,640**	**$106,734**

TABLE 26 : DEVELOPMENT OF THE COMMODITY ALLOCATION FACTOR

Development of the Volumetric/Variable Allocation Factor[1]				
Customer Class	**FY 2021/22 Consumption (hcf)**	**% Adjustment for Conservation[2]**	**Est. FY 2021/22 Volume Adjusted for Conservation**	**FY 2021/22 % of Total Volume**
Residential	507,339	20.0%	405,871	**50.1%**
Multi-Family	89,630	20.0%	71,704	**8.8%**
Commercial	318,808	20.0%	255,046	**31.5%**
Landscape	53,157	20.0%	42,526	**5.2%**
Private Fire Protection	22,831	20.0%	18,265	**2.3%**
Temporary Hydrant Meters	8,303	20.0%	6,642	**0.8%**
Raw Water	13,039	20.0%	10,431	**1.3%**
Total	**1,013,107**		**810,486**	**100%**

1. Consumption data is based on the City of American Canyon's billing data.
2. A conservation factor of 20% included in table above based on the "20 by 2020" law passed in 2009.
   Source: *https://www.ca-ilg.org* .

Commodity Related Costs: *Costs associated with the total consumption (flow) of water over a specified period of time (e.g. annual).*

TABLE 27 : DEVELOPMENT OF THE CAPACITY ALLOCATION FACTORS

Development of the CAPACITY Allocation Factors					
Customer Class	Meter Size[1]	No. of Meters	Hydraulic Capacity Factors[2]	Total Equivalent Meters	% of EDUs
Residential		**4,880**		**4,930**	**42.2%**
	< 1" meter	1,986	*1.00*	1,986	
	1" meter	2,875	*1.00*	2,875	
	1 1/2" meter	7	*2.00*	14	
	2" meter	9	*3.20*	29	
	3" meter	1	*6.40*	6	
	4" meter	2	*10.00*	20	
Multi-Family		**556**		**5,598**	**47.9%**
	1 1/2" meter	20	*2.00*	40	
	2" meter	201	*3.20*	643	
	3" meter	96	*6.40*	614	
	4" meter	48	*10.00*	480	
	6" meter	191	*20.00*	3,820	
Commercial		**343**		**698**	**6.0%**
	< 1" meter	102	*1.00*	102	
	1" meter	88	*1.00*	88	
	1 1/2" meter	54	*2.00*	108	
	2" meter	81	*3.20*	259	
	3" meter	11	*6.40*	70	
	4" meter	7	*10.00*	70	
Landscape		**73**		**122**	**1.0%**
	< 1" meter	13	*1.00*	13	
	1" meter	30	*1.00*	30	
	1 1/2" meter	14	*2.00*	28	
	2" meter	16	*3.20*	51	
Private Fire Protection		**245**		**245**	**2.1%**
	< 1" meter	245	*1.00*	245	
Temporary Hydrant Meters		**8**		**51**	**0.4%**
	3" meter	8	*6.40*	51	
Raw Water		**3**		**40**	**0.3%**
	4" meter	2	*10.00*	20	
	6" meter	1	*20.00*	20	
Total		**6,108**		**11,684**	**100%**

1. Meter by class and size are based on June 2022 customer billing data.
2. Source: *Principles of Water Rates, Fees, and Charges* , Manual M1, AWWA, Table B-1.

Capacity Related Costs: *Costs associated with the maximum demand required at one point in time or the maximum size of facilities required to meet this demand.*

TABLE 28 : DEVELOPMENT OF THE CUSTOMER ALLOCATION FACTORS

Development of the Customer Allocation Factor		
Customer Class	No. of Meters/Accounts FY 2021/22[1]	% of Total Meters
Residential	4,880	**71.5%**
Multi-Family[2]	1,273	**18.7%**
Commercial	343	**5.0%**
Landscape	73	**1.1%**
Private Fire Protection	245	**3.6%**
Temporary Hydrant Meters	8	**0.1%**
Raw Water	3	**0.0%**
Total	**6,825**	**100.0%**

1. Meter count data is based on the City's billing data for June 2022.
2. Multi-family residential customers are by dwelling units.

Customer Related Costs: *Costs associated with having a customer on the water system. These costs vary with the addition or deletion of customers on the system. Examples: Meter-reading, Postage and billing.*

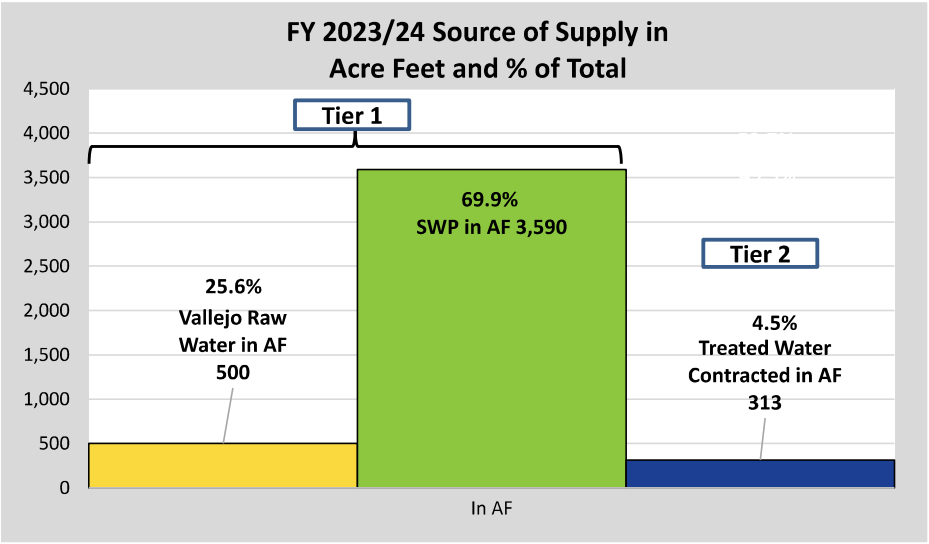
TABLE 29 : FY 2023/24 WATER SUPPLY BY SOURCE

Source of Supply	Total Contracted Purchases		Acre Feet as a % of Total	Total Cost (FY 2023/24)	Cost as a % of Total Cost
	In AF	In HCF			
SWP (Contracted Purchase)	3,590	1,563,804	81.5%	$ 2,727,590	75.7%
Vallejo Raw Water (Contracted Purchase)	500	217,800	11.4%	138,033	3.8%
Treated Water (Contracted Purchase)[1]	313	136,181	7.1%	737,049	20.5%
Totals	**4,403**	**1,917,785**	**100.0%**	**$ 3,602,672**	**100%**

1. This includes Vallejo Treated Water and City of Napa Treat and Wheel. Source files: *Water cost projections.xlsx* .

TABLE 30 : UNIT COSTS BY SOURCE OF SUPPLY

Source of Supply	Quantity (AF)	Total Cost	Rate ($/AF)
SWP (Tier 1)	3,590	$ 2,727,590	$ 760
Vallejo Raw Water (Tier 1)	500	138,033	$ 276
Treated Water (Tier 2)	313	737,049	$ 2,358
Total Water Supply (AF)	**4,403**	**$ 3,602,672**	
Unit Costs ($/HCF)	**Quantity (HCF)**	**Total Cost**	**Rate ($/HCF)**
Tier 1 - SWP & Vallejo Raw Water	1,781,604	$ 1,129,112	**$ 0.63**
Tier 2 - Treated Water (Napa & Vallejo)	136,181	737,049	**$ 5.41**
Blended Cost (all water) per hcf			*$ 1.88*
Total Estimated Quantity (hcf)	**1,917,785**	**$ 1,866,161**	**810,486**
Estimated Residential Consumption			**405,871**
Total FY 2023/24 % of Total Volume			***50.1%***



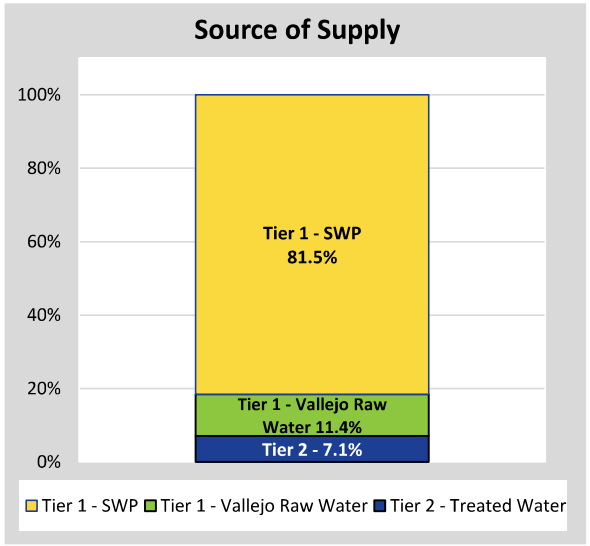


TABLE 31 : ALLOCATION OF WATER REVENUE REQUIREMENTS

Classification Components	PROPOSED ALTERNATIVE (40% Fixed / 60% Variable) Cost-of-Service Net Revenue Requirements *(FY 2023/24)*	
Commodity-Related Costs	$ 6,174,833	*60.0%*
Capacity-Related Costs	3,709,181	*36.0%*
Customer-Related Costs	300,640	*2.9%*
Fire Protection-Related Costs	106,734	*1.0%*
Net Revenue Requirement	**$ 10,291,388**	*100.0%*

Unadjusted Net Rev. Req'ts.
60.0% *total variable*
40.0% *total fixed*
100.0%

TABLE 32 : ALLOCATION OF UNADJUSTED NET REVENUE REQUIREMENTS - FY 2023/24

Net Revenue Requirements (COSA)						
Customer Classes	Classification Components				Cost of Service Net Rev. Req'ts	% of COS Net Revenue Req'ts
	VARIABLE	*FIXED*				
	Commodity-Related Costs	Capacity-Related Costs	Customer-Related Costs	Fire Protection-Related Costs		
Residential	$ 3,092,204	$ 1,565,159	$ 214,963	$ -	$ 4,872,326	*47.3%*
Multi-Family	546,290	1,777,034	56,075	-	2,379,400	*23.1%*
Commercial	1,943,118	221,463	15,109	-	2,179,689	*21.2%*
Landscape	323,989	38,794	3,216	-	365,999	*3.6%*
Private Fire Protection	139,154	77,779	10,792	106,734	334,458	*3.2%*
Temporary Hydrant Meters	50,606	16,254	352		67,213	*0.7%*
Raw Water	79,472	12,699	132	-	92,303	*0.9%*
Total Net Revenue Requirement	**$ 6,174,833**	**$ 3,709,181**	**$ 300,640**	**$ 106,734**	**$ 10,291,388**	**100%**
Total Net Revenue Requirement by Classification Component	*VARIABLE $6,174,833*	*FIXED $4,116,555*			*$10,291,388*	

TABLE 33 : COST-OF-SERVICE SUMMARY OF REVENUE REQUIREMENTS

Customer Class	Proposed Alternative Allocated Costs	
	FY 2023/24 COS Rev. Req't	% of COS Rev. Req't.
Residential	$ 4,872,326	47.3%
Multi-Family	2,379,400	23.1%
Commercial	2,179,689	21.2%
Landscape	365,999	3.6%
Private Fire Protection	334,458	3.2%
Temporary Hydrant Meters	67,213	0.7%
Raw Water	92,303	0.9%
Total	**$ 10,291,388**	**100%**

TABLE 34 : METER EQUIVALENCY FACTORS USED IN FIXED CHARGES CALCULATION

Meter Size	Standard Meters	
	Meter Capacity (gpm)[1]	Equivalency to 1 inch
	Displacement Meters	
5/8 inch	20	1.00
3/4 inch	30	1.00
1 inch	50	1.00
1 1/2 inch	100	2.00
2 inch	160	3.20
	Compound Class I Meters	
3 inch	320	6.40
4 inch	500	10.00
6 inch	1,000	20.00
8 inch	1,600	32.00
	Turbine Class II Meters	
10 inch	4,200	84.00
12 inch	5,300	106.00

1. Per AWWA, M1 Manual, Table B-1.

TABLE 35 : CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY 2023/24

ALTERNATIVE 1 (COSA)

Number of Meters by Class and Size[1]	FY 2023/24								Total
	< 1" meter	1" meter	1 1/2" meter	2" meter	3" meter	4" meter	6" meter	8" meter	
Residential	1,986	2,875	7	9	1	2	0	0	4,880
Multi-Family	0	0	20	201	96	48	191	0	556
Commercial	13	30	14	16	0	0	0	0	73
Commercial	102	88	54	81	11	7	0	0	343
Private Fire Protection	245	0	0	0	0	0	0	0	245
Temporary Hydrant Meters	0	0	0	0	8	0	0	0	8
Raw Water	0	0	0	0	0	2	1	0	3
Total Meters/Accounts	**2,346**	**2,993**	**95**	**307**	**116**	**59**	**192**	**0**	**6,108**
Hydraulic Capacity Factor[2]	*1.00*	*1.00*	*2.00*	*3.20*	*6.40*	*10.00*	*20.00*	*32.00*	
Total Equivalent Meters	**2,346**	**2,993**	**190**	**982**	**742**	**590**	**3,840**	**0**	**11,684**
Monthly Fixed Service Charges									
Customer Costs ($/Acct/month)[3]	$4.10	$4.10	$4.10	$4.10	$4.10	$4.10	$4.10	$4.10	
Capacity Costs ($/Acct/month)[4]	$27.22	$27.22	$54.43	$87.09	$174.19	$272.17	$544.33	$870.93	
Total Monthly Meter Charge	**$31.32**	**$31.32**	**$58.53**	**$91.19**	**$178.29**	**$276.27**	**$548.43**	**$875.03**	
Annual Fixed Costs Allocated to Monthly Meter Charges									
Customer Costs	$ 300,640								
Capacity Costs	3,815,915								
Total Fixed Meter Costs	$ 4,116,555								
Annual Revenue from Monthly Meter Charges									
Customer Charges	$ 115,491	$ 147,298	$ 4,676	$ 15,111	$ 5,710	$ 2,904	$ 9,450	$ -	**$ 300,640**
Capacity Charges	$ 766,330	$ 977,381	$ 62,054	$ 320,851	$ 242,467	$ 192,693	$ 1,254,139	$ -	**$ 3,815,915**
Total Revenue from Monthly Meter Charges	**$ 881,821**	**$ 1,124,680**	**$ 66,730**	**$ 335,961**	**$ 248,177**	**$ 195,597**	**$ 1,263,590**	**$ -**	**$ 4,116,555**

1. Meter by Class and Size are based on June 2022 customer billing data.
2. Source: *Principles of Water Rates, Fees, and Charges* , Manual M1, AWWA, Table B-1.
3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

TABLE 36 : FIXED CHARGES REVENUE CHECK

Number of Meters by Class and Size	FY 2023/24								Total
	< 1"	1"	1 1/2"	2"	3"	4"	6"	8"	
Potable Water									
Residential	1,986	2,875	7	9	1	2	0	0	4,880
Multi-Family	0	0	20	201	96	48	191	0	556
Commercial	102	88	54	81	11	7	0	0	343
Landscape	13	30	14	16	0	0	0	0	73
Private Fire	245	0	0	0	0	0	0	0	245
Temp Meter	0	0	0	0	8	0	0	0	8
Raw Water	0	0	0	0	0	2	1	0	3
Recycled Water									
Recycled Water	2	13	14	28	13	6	0	0	76
Total Meters/Accounts	**2,348**	**3,006**	**109**	**335**	**129**	**65**	**192**	**0**	**6,184**

TABLE 37 : PROJECTED FIXED REVENUE CHECK

Net Revenue Requirements (COSA)

Projected Revenue From Fixed Charges by Customer Class	FY 2023/24								
	< 1"	1"	1 1/2"	2"	3"	4"	6"	8"	
All Customers by Meter Size	***$31.32***	***$31.32***	***$58.53***	***$91.19***	***$178.29***	***$276.27***	***$548.43***	***$875.03***	
Revenue from Fixed Charges									
Potable Water									
Residential	$ 746,526	$ 1,080,333	$ 4,917	$ 9,849	$ 2,139	$ 6,630	$ -	$ -	**$ 1,850,395**
Multi-Family	-	-	14,048	219,962	205,387	159,130	1,257,008	-	**1,855,536**
Commercial	38,334	33,072	37,931	88,641	23,534	23,206	-	-	**244,718**
Landscape	4,886	11,275	9,834	17,509	-	-	-	-	**43,503**
Private Fire	92,076	-	-	-	-	-	-	-	**92,076**
Temp Meter	-	-	-	-	17,116	-	-	-	**17,116**
Raw Water	-	-	-	-	-	6,630	6,581	-	**13,212**
Total Revenue - Fixed Charges									***$ 4,116,555***

TABLE 38 : PROJECTED FIXED REVENUE CHECK

Customer Class	Net Revenue Requirements (COSA)		
	COS Rev. Req't	Expected Revenue	Over/(Under) Collected
Potable Water			
Residential	$ 1,780,122	$ 1,850,395	$ 70,272
Multi-Family	1,833,110	1,855,536	22,426
Commercial	236,572	244,718	8,146
Landscape	42,010	43,503	1,494
Private Fire	195,304	92,076	(103,229)
Temp Meter	16,607	17,116	509
Raw Water	12,831	13,212	381
Total	**$ 4,116,555**	**$ 4,116,555**	**$ -**

TABLE 39 : PROPOSED VOLUMETRIC CHARGES FOR FY 2023/24

Net Revenue Requirements (COSA)						
Customer Classes	**Number of Meters[1]**	**Water Consumption (hcf/yr)[2]**	**Total Target Rev. Req't from Vol. Charges**	**% of Total Rate Revenue**	**Uniform Commodity Rates ($/hcf)**	***Proposed Rate Structure***
Residential	4,880	405,871	$ 3,092,204	*50.1%*	*n/a*	*2 Tiers*
Multi-Family	1,273	71,704	546,290	*8.8%*	$7.619	*Uniform*
Commercial	343	255,046	1,943,118	*31.5%*	$7.619	*Uniform*
Landscape	73	42,526	323,989	*5.2%*	$7.619	*Uniform*
Private Fire Protection	245	18,265	139,154	*2.3%*	$7.619	*Uniform*
Temporary Hydrant Meters	8	6,642	50,606	*0.8%*	$7.619	*Uniform*
Raw Water	3	10,431	79,472	*1.3%*	$7.619	*Uniform*
Total Potable Water	**6,825**	**810,486**	**$ 6,174,833**	***100%***		

1. Consumption data is based on the City of American Canyon's billing data.
2. Water consumption is actual consumption for FY 2021/22 and includes an adjustment of 20% for conservation. See Table 26.

TABLE 40 : RESIDENTIAL & MOBILE HOME TIER BREAK ADJUSTMENTS

Residential Tiers[1]	**Consumption**	**% of Consumption[2]**	**Avg. Monthly Consumption FY 2020/21 (hcf)[3]**	**Tier Breakpoint (hcf)[4]**
Tier 1 - SWP & Vallejo Raw Water	322,836	79.5%		6.00
Tier 2 - Treated Water (Napa & Vallejo)	83,035	20.5%		
Total	**405,871**	**100.0%**	7.0	

1. SWP & Vallejo raw water are included in Tier 1 and all treated water (Napa & Vallejo) is in Tier 2. The FY 2021/22 consumption data are actuals and includes a 20% conservation factor. See *Allocation Factors* Tab, Table 26.
2. See *Source of Supply* Tab for details on how the percentage of consumption was calculated.
3. Annual residential consumption divided by total residential meters divided by 12 months.
4. Tier 2 breakpoint is the percentage of Tier 1 consumption times the *Avg. Monthly Consumption* , rounded to the nearest integer in hcf.

TABLE 41 : ALLOCATION OF SOURCE OF SUPPLY COSTS TO SINGLE FAMILY TIERED RATES

Source of Supply	**Water Supply by Source (hcf)[1]**	**% Alloc. by Class[2]**	**Cost ($/hcf)[3]**	**Total Supply Costs**	**Residential Share of Supply**
Tier 1 - SWP & Vallejo Raw Water					
Residential	**892,183**	**50.1%**	**$0.63**	**$ 565,431**	**$ 565,431**
All Other Classes	889,421	49.9%	$0.63	563,680	*N.A.*
Total SWP & Vallejo Raw Water	**1,781,604**	**100.0%**	***N.A.***	**$ 1,129,112**	***N.A.***
Tier 2 - Treated Water (Napa & Vallejo)					
Residential	**68,196**	**50.1%**	**$5.41**	**$ 369,096**	**$ 369,096**
All Other Classes	67,985	49.9%	$5.41	367,953	*N.A.*
Total Treated Water (Napa & Vallejo)	**136,181**	**100.0%**	***N.A.***	**$ 737,049**	***N.A.***
Grand Total	**1,917,785**			**$ 1,866,161**	**$ 934,527**

1. Total Contracted Supply Purchase Costs are from the *Source of Supply* Tab, Table 29.
2. Residential consumption for FY 2021/22 is from the *Allocation Factors* Tab, Table 26.
3. Contracted Supply Costs are from the *Source of Supply* Tab, Table 30.

TABLE 42 : RESIDENTIAL TIERED RATES

Source of Supply	Supply Costs Allocated to Residential Tiered Rates[1]	Source of Supply Costs[2]	Other Costs Allocated to Vol. Rates	Total Costs Allocated[3]	FY 2020/21 Consumption[4]	Residential Rates ($/HCF)[5]
Residential Tiered Rate Costs	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	(6)
Tier 1 - SWP & Vallejo Raw Water	79.5%	$ 565,431	$ 1,716,250	$ 2,281,681	322,836	**$7.07**
Tier 2 - Treated Water (Napa & Vallejo)	20.5%	369,096	441,426	810,523	83,035	**$9.76**
Total Residential Tiered Rate Costs	**100.0%**	**$ 934,527**	**$ 2,157,676**	**$ 3,092,204**	**405,871**	

1. Percentage of annual supply based on contracted purchases from *Source of Supply* Tab, Table 29.
2. See Table 41.
3. Total Variable Costs allocated to residential customers (*Proposed Fixed Charges* Tab, Table 33) less their Source of Supply Costs. NBS assumed these other costs are proportionally allocated to Tier 1 and Tier 2.
4. FY 2021/22 volume adjusted for conservation is from the *Allocation Factors* Tab, Table 26.

TABLE 43 : ESTIMATED VOLUMETRIC REVENUE BY CUSTOMER CLASS - PROPOSED ALTERNATIVE

ALTERNATIVE 1 (COSA)

Customer Class	Estimated Consumption (hcf)	Estimated Variable Revenue	% of Variable Rate Revenue	Estimated Fixed Revenue	Total Estimated Revenue	Cost of Service Net Revenue Req'ts
Residential						
Tier 1 - SWP & Vallejo Raw Water	322,836	$ 2,459,588	*40%*	$ 1,471,833	$ 3,931,421	$ 3,875,526
Tier 2 - Treated Water (Napa & Vallejo)	83,035	632,616	*10%*	378,561	1,011,177	996,800
Multi-Family	71,704	546,290	*9%*	1,855,536	2,401,826	2,379,400
Commercial	255,046	1,943,118	*31%*	244,718	2,187,836	2,179,689
Landscape	42,526	323,989	*5%*	43,503	367,493	365,999
Private Fire Protection	18,265	139,154	*2%*	92,076	231,229	334,458
Temporary Hydrant Meters	6,642	50,606	*1%*	17,116	67,722	67,213
Raw Water	10,431	79,472	*1%*	13,212	92,684	92,303
Grand Total	**810,486**	**$ 6,174,833**	***100%***	**$ 4,116,555**	**$ 10,291,388**	**$ 10,291,388**

TABLE 44 : PROPOSED VOLUMETRIC CHARGES FOR FY 2023/24

ALTERNATIVE 2 - INCREASE CURRENT VARIABLE RATES BY 3% ANNUALLY

Customer Classes	Number of Meters	Water Consumption (hcf/yr)	Total Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Proposed Commodity Rates ($/hcf)	Revised Revenue from Vol. Charges
Residential	4,880					
Tier 1 - SWP & Vallejo Raw Water		322,836	$ 2,459,588	*39.8%*	$7.766	$ 2,507,212
Tier 2 - Treated Water (Napa & Vallejo)		83,035	632,616	*10.2%*	$8.395	697,036
Multi-Family	1,273	71,704	546,290	*8.8%*	$7.952	570,162
Commercial	343	255,046	1,943,118	*31.5%*	$7.952	2,028,027
Landscape	73	42,526	323,989	*5.2%*	$7.952	338,147
Private Fire Protection	245	18,265	139,154	*2.3%*	$3.976	72,617
Temporary Hydrant Meters	8	6,642	50,606	*0.8%*	$7.952	52,818
Raw Water	3	10,431	79,472	*1.3%*	$3.543	36,960
Grand Total	**6,825**	**810,486**	**$ 6,174,833**	***100%***		**$ 6,302,977**

TABLE 45 : ASSUMPTIONS USED IN DROUGHT RATE ANALYSIS

2021/22 Consumption Assumptions[1]					
Shortage Level	Percent Shortage Range	Shortage Response Action	Potable Water Consumption (AF/yr.)	Potable Water Consumption (hcf/yr.)	Difference to Baseline (hcf)
	Baseline Consumption[2]		**1,861**	**810,486**	**0**
1	Up to 10%	Voluntary Conservation	1,675	729,437	(81,049)
2	Up to 20%	Water Alert	1,488	648,388	(162,097)
3	Up to 30%	Water Emergency	1,302	567,340	(243,146)
4	Up to 40%	Critical Water Emergency	1,116	486,291	(324,194)
5	Up to 50%	Severe Water Emergency	930	405,243	(405,243)
6	>50%	Catastrophic Interruption of Water Supplies	744	324,194	(486,291)

1. Drought stages based on the City's Water Conservation Plan. Source files: *2._Redlines_Ordinance_Water_Conservation_Plan_Chapter_13.14 (4).pdf* & *3._Table_8-1_Water_Shortage_Contingency_Plan_Levels.pdf* .
2. This represents the baseline consumption for FY 2021/22 consumption (excludes recycled water). Conservation percentage for each drought stage is relative to the baseline consumption.

TABLE 46 : EXPENSES DIRECTLY IMPACTED BY FUTURE MANDATED WATER USE REDUCTION

Expenses Directly Effected By Consumption Changes					
Description	Commodity-Related Costs				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
City of Napa	$ 278,000	$ 283,560	$ 289,231	$ 295,016	$ 300,916
North Bay Aqueduct	3,203,000	3,267,060	3,332,401	3,399,049	3,467,030
City of Vallejo	121,218	123,642	126,115	128,638	131,210
Total:	**$ 3,602,218**	**$ 3,674,262**	**$ 3,747,748**	**$ 3,822,703**	**$ 3,899,157**

TABLE 47 : CALCULATION OF DROUGHT RATES FOR FY 2023/24

ALTERNATIVE 1 (COSA)						
Conservation Goal	Water Consumption (hcf/yr.)	Baseline Rev. Req't from Vol. Charges	Cost Reduction Due to Conservation[1]	Target Rev. Req't from Vol. Charges	Drought Surcharge *($/hcf)*	Uniform Commodity Rates *($/hcf)*
0%	810,486	$ 6,174,833	$ -	$ 6,174,833	$0.00	$7.62
Up to 10%	729,437	6,174,833	(360,222)	5,814,611	$0.35	$7.97
Up to 20%	648,388	6,174,833	(720,444)	5,454,389	$0.79	$8.41
Up to 30%	567,340	6,174,833	(1,080,665)	5,094,167	$1.36	$8.98
Up to 40%	486,291	6,174,833	(1,440,887)	4,733,945	$2.12	$9.73
Up to 50%	405,243	6,174,833	(1,801,109)	4,373,724	$3.17	$10.79
>50%	324,194	6,174,833	(2,161,331)	4,013,502	$4.76	$12.38

1. Cost reduction equals the conservation goal percentage multiplied by expenses directly effected by consumption charges.

TABLE 48 : CALCULATION OF DROUGHT RATES FOR FY 2024/25

ALTERNATIVE 1 (COSA)						
Conservation Goal	Water Consumption (hcf/yr.)	Baseline Rev. Req't from Vol. Charges	Cost Reduction Due to Conservation[1]	Target Rev. Req't from Vol. Charges	Drought Surcharge *($/hcf)*	Uniform Commodity Rates *($/hcf)*
0%	810,486	$ 6,851,718	$ -	$ 6,851,718	$0.00	$8.45
Up to 10%	729,437	6,851,718	(367,426)	6,484,291	$0.44	$8.89
Up to 20%	648,388	6,851,718	(734,852)	6,116,865	$0.98	$9.43
Up to 30%	567,340	6,851,718	(1,102,279)	5,749,439	$1.68	$10.13
Up to 40%	486,291	6,851,718	(1,469,705)	5,382,013	$2.61	$11.07
Up to 50%	405,243	6,851,718	(1,837,131)	5,014,587	$3.92	$12.37
>50%	324,194	6,851,718	(2,204,557)	4,647,160	$5.88	$14.33

1. Cost reduction equals the conservation goal percentage multiplied by expenses directly effected by consumption charges.

TABLE 49 : CALCULATION OF DROUGHT RATES FOR FY 2025/26

ALTERNATIVE 1 (COSA)						
Conservation Goal	Water Consumption (hcf/yr.)	Baseline Rev. Req't from Vol. Charges	Cost Reduction Due to Conservation[1]	Target Rev. Req't from Vol. Charges	Drought Surcharge *($/hcf)*	Uniform Commodity Rates *($/hcf)*
0%	810,486	$ 7,595,335	$ -	$ 7,595,335	$0.00	$9.37
Up to 10%	729,437	7,595,335	(374,775)	7,220,560	$0.53	$9.90
Up to 20%	648,388	7,595,335	(749,550)	6,845,785	$1.19	$10.56
Up to 30%	567,340	7,595,335	(1,124,324)	6,471,010	$2.03	$11.41
Up to 40%	486,291	7,595,335	(1,499,099)	6,096,236	$3.16	$12.54
Up to 50%	405,243	7,595,335	(1,873,874)	5,721,461	$4.75	$14.12
>50%	324,194	7,595,335	(2,248,649)	5,346,686	$7.12	$16.49

1. Cost reduction equals the conservation goal percentage multiplied by expenses directly effected by consumption charges.

TABLE 50 : CALCULATION OF DROUGHT RATES FOR FY 2026/27

ALTERNATIVE 1 (COSA)						
Conservation Goal	Water Consumption (hcf/yr.)	Baseline Rev. Req't from Vol. Charges	Cost Reduction Due to Conservation[1]	Target Rev. Req't from Vol. Charges	Drought Surcharge *($/hcf)*	Uniform Commodity Rates *($/hcf)*
0%	810,486	$ 8,033,434	$ -	$ 8,033,434	$0.00	$9.91
Up to 10%	729,437	8,033,434	(382,270)	7,651,163	$0.58	$10.49
Up to 20%	648,388	8,033,434	(764,541)	7,268,893	$1.30	$11.21
Up to 30%	567,340	8,033,434	(1,146,811)	6,886,623	$2.23	$12.14
Up to 40%	486,291	8,033,434	(1,529,081)	6,504,353	$3.46	$13.38
Up to 50%	405,243	8,033,434	(1,911,351)	6,122,082	$5.20	$15.11
>50%	324,194	8,033,434	(2,293,622)	5,739,812	$7.79	$17.70

1. Cost reduction equals the conservation goal percentage multiplied by expenses directly effected by consumption charges.

TABLE 51 : CALCULATION OF DROUGHT RATES FOR FY 2027/28

ALTERNATIVE 1 (COSA)						
Conservation Goal	**Water Consumption (hcf/yr.)**	**Baseline Rev. Req't from Vol. Charges**	**Cost Reduction Due to Conservation[1]**	**Target Rev. Req't from Vol. Charges**	**Drought Surcharge** *($/hcf)*	**Uniform Commodity Rates** *($/hcf)*
0%	810,486	$ 8,415,102	$ -	$ 8,415,102	$0.00	$10.38
Up to 10%	729,437	8,415,102	(389,916)	8,025,186	$0.62	$11.00
Up to 20%	648,388	8,415,102	(779,831)	7,635,271	$1.39	$11.78
Up to 30%	567,340	8,415,102	(1,169,747)	7,245,355	$2.39	$12.77
Up to 40%	486,291	8,415,102	(1,559,663)	6,855,439	$3.71	$14.10
Up to 50%	405,243	8,415,102	(1,949,578)	6,465,524	$5.57	$15.95
>50%	324,194	8,415,102	(2,339,494)	6,075,608	$8.36	$18.74

1. Cost reduction equals the conservation goal percentage multiplied by expenses directly effected by consumption charges.

TABLE 52 : CURRENT VS. PROPOSED WATER RATES - FIXED CHARGES *ALTERNATIVE 1 (COSA)*

Water Rate Schedule	Current Rates	Proposed Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Monthly Fixed Service Charges (in $/mo)						
Residential Use						
< 1" meter	$26.56	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter	$26.56	$31.32	$34.14	$37.21	$38.70	$39.86
1 1/2" meter	$26.56	$58.53	$63.80	$69.55	$72.33	$74.50
2" meter	$26.56	$91.19	$99.40	$108.35	$112.68	$116.06
3" meter	$26.56	$178.29	$194.33	$211.82	$220.30	$226.91
4" meter	$26.56	$276.27	$301.13	$328.23	$341.36	$351.60
6" meter	$26.56	$548.43	$597.79	$651.59	$677.66	$697.99
8" meter	$26.56	$875.03	$953.78	$1,039.63	$1,081.21	$1,113.65
Multi-Family, Commercial and Landscape						
< 1" meter	$26.56	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter (Residential)	$26.56	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter (Commercial)	$44.42	$31.32	$34.14	$37.21	$38.70	$39.86
1 1/2" meter	$88.75	$58.53	$63.80	$69.55	$72.33	$74.50
2" meter	$141.99	$91.19	$99.40	$108.35	$112.68	$116.06
3" meter	$283.98	$178.29	$194.33	$211.82	$220.30	$226.91
4" meter	$443.74	$276.27	$301.13	$328.23	$341.36	$351.60
6" meter	$887.48	$548.43	$597.79	$651.59	$677.66	$697.99
8" meter	$1,420.06	$875.03	$953.78	$1,039.63	$1,081.21	$1,113.65
Private Fire Protection						
< 1" meter	$13.28	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter	$13.28	$31.32	$34.14	$37.21	$38.70	$39.86
1 1/2" meter	$13.28	$58.53	$63.80	$69.55	$72.33	$74.50
2" meter	$13.28	$91.19	$99.40	$108.35	$112.68	$116.06
3" meter	$13.28	$178.29	$194.33	$211.82	$220.30	$226.91
4" meter	$13.28	$276.27	$301.13	$328.23	$341.36	$351.60
6" meter	$13.28	$548.43	$597.79	$651.59	$677.66	$697.99
8" meter	$13.28	$875.03	$953.78	$1,039.63	$1,081.21	$1,113.65
Temporary Hydrant Meters						
< 1" meter	$283.98	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter	$283.98	$31.32	$34.14	$37.21	$38.70	$39.86
1 1/2" meter	$283.98	$58.53	$63.80	$69.55	$72.33	$74.50
2" meter	$283.98	$91.19	$99.40	$108.35	$112.68	$116.06
3" meter	$283.98	$178.29	$194.33	$211.82	$220.30	$226.91
4" meter	$283.98	$276.27	$301.13	$328.23	$341.36	$351.60
6" meter	$283.98	$548.43	$597.79	$651.59	$677.66	$697.99
8" meter	$283.98	$875.03	$953.78	$1,039.63	$1,081.21	$1,113.65
Raw Water						
< 1" meter	*n/a*	$31.32	$34.14	$37.21	$38.70	$39.86
1" meter	$44.42	$31.32	$34.14	$37.21	$38.70	$39.86
1 1/2" meter	*n/a*	$58.53	$63.80	$69.55	$72.33	$74.50
2" meter	$141.99	$91.19	$99.40	$108.35	$112.68	$116.06
3" meter	*n/a*	$178.29	$194.33	$211.82	$220.30	$226.91
4" meter	$443.74	$276.27	$301.13	$328.23	$341.36	$351.60
6" meter	$887.48	$548.43	$597.79	$651.59	$677.66	$697.99
8" meter	*n/a*	$875.03	$953.78	$1,039.63	$1,081.21	$1,113.65

TABLE 53 : CURRENT VS. PROPOSED WATER RATES - VARIABLE RATES

Water Rate Schedule	Current Rates	ALTERNATIVE 1 (COSA) Proposed Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Projected Increase in Rate Revenue per Financial Plan:		*9.00%*	*9.00%*	*9.00%*	*4.00%*	*3.00%*
Variable Rates for All Water Consumed (in $/hcf)						
Residential Use						
Tier 1 (0 - 6 units)	$7.54	$7.07	$7.70	$8.40	$8.73	$8.99
Tier 2 (> 6 units)	$8.15	$9.76	$10.64	$11.60	$12.06	$12.42
Multi-Family, Commercial and Landscape	$7.72	$7.62	$8.30	$9.05	$9.41	$9.70
Private Fire Protection	$3.86	$7.62	$8.30	$9.05	$9.41	$9.70
Temporary Hydrant Meters	$7.72	$7.62	$8.30	$9.05	$9.41	$9.70
Raw Water	$3.44	$7.62	$8.30	$9.05	$9.41	$9.70

TABLE 54 : CURRENT VS. PROPOSED WATER RATES - VARIABLE RATES

Water Rate Schedule	Current Rates	ALTERNATIVE 2 - INCREASE CURRENT VARIABLE RATES BY 3% ANNUALLY Proposed Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Projected Increase in Rate Revenue per Financial Plan:		*3.00%*	*3.00%*	*3.00%*	*3.00%*	*3.00%*
Variable Rates for All Water Consumed (in $/hcf)						
Residential Use						
Tier 1 (0 - 6 units)	$7.54	$7.77	$8.00	$8.24	$8.49	$8.74
Tier 2 (> 6 units)	$8.15	$8.39	$8.65	$8.91	$9.17	$9.45
Multi-Family, Commercial and Landscape	$7.72	$7.95	$8.19	$8.44	$8.69	$8.95
Private Fire Protection	$3.86	$3.98	$4.10	$4.22	$4.34	$4.47
Temporary Hydrant Meters	$7.72	$7.95	$8.19	$8.44	$8.69	$8.95
Raw Water	$3.44	$3.54	$3.65	$3.76	$3.87	$3.99

TABLE 55 : CURRENT VS. PROPOSED DROUGHT RATES

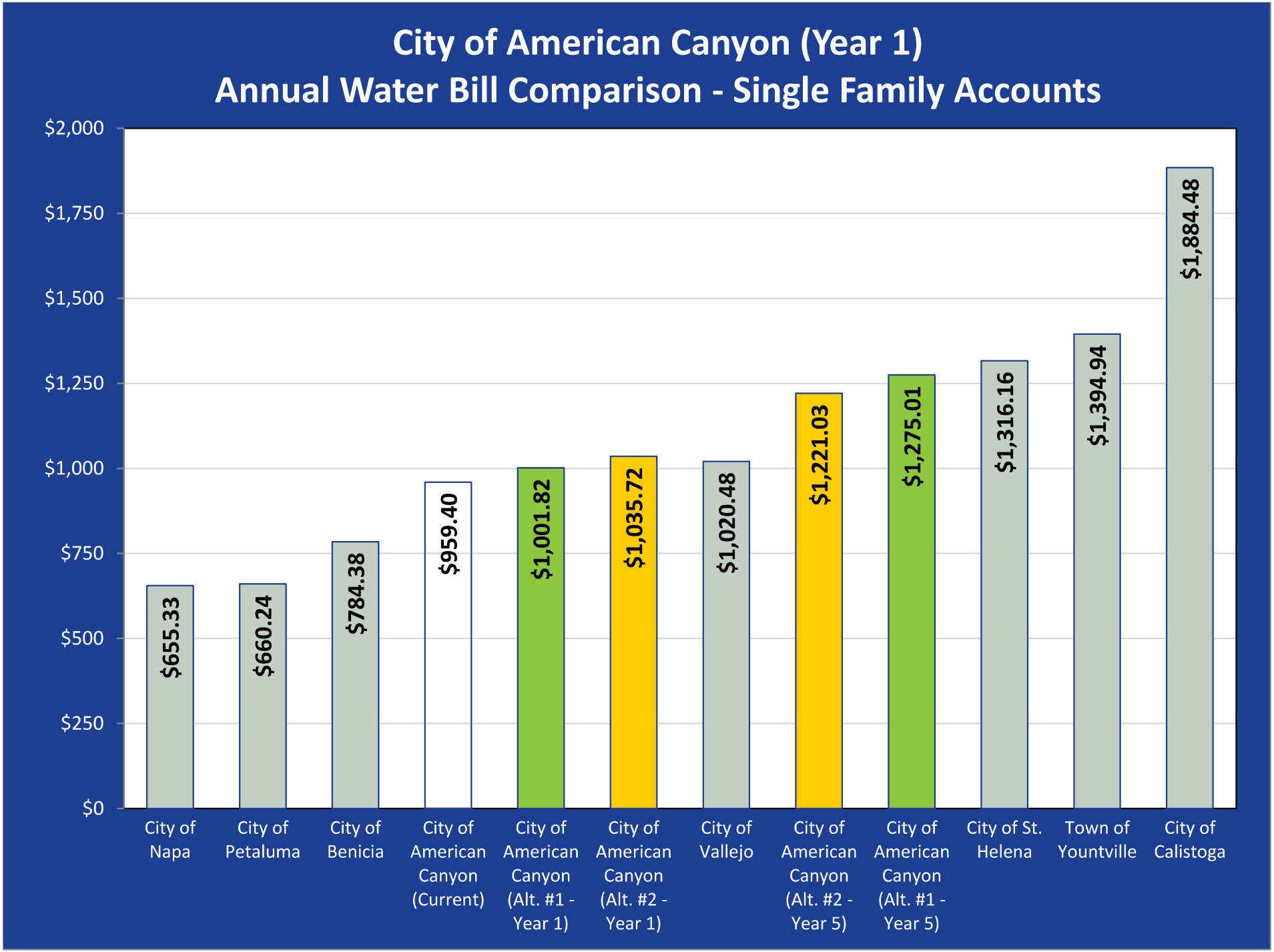
Drought Rate Schedule *(in $/hcf)*	Current Rates	ALTERNATIVE 1 (COSA) FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
10% Conservation	*n/a*	$0.35	$0.44	$0.53	$0.58	$0.62
20% Conservation	*n/a*	$0.79	$0.98	$1.19	$1.30	$1.39
30% Conservation	*n/a*	$1.36	$1.68	$2.03	$2.23	$2.39
40% Conservation	*n/a*	$2.12	$2.61	$3.16	$3.46	$3.71
50% Conservation	*n/a*	$3.17	$3.92	$4.75	$5.20	$5.57
60% Conservation	*n/a*	$4.76	$5.88	$7.12	$7.79	$8.36

TABLE 56 : RATES AND DROUGHT SURCHARGE FOR EACH DROUGHT STAGE

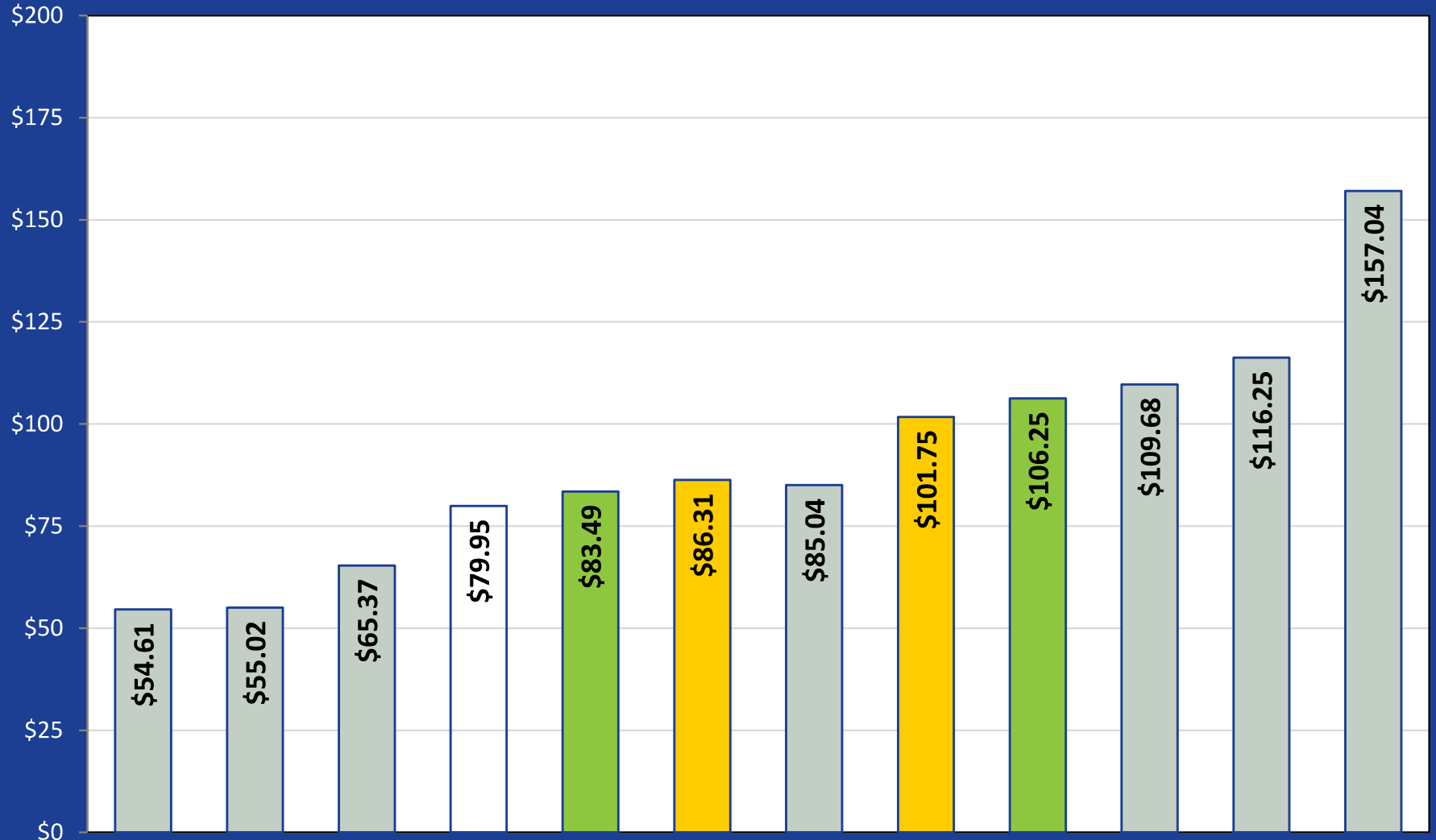
Proposed Drought Rates										
Drought Rate Schedule[1]	**FY 2023/24**		**FY 2024/25**		**FY 2025/26**		**FY 2026/27**		**FY 2027/28**	
Water Consumption Baseline (hcf/yr)[2]	**810,486 hcf**		**810,486 hcf**		**810,486 hcf**		**810,486 hcf**		**810,486 hcf**	
Conservation Target	*Drought Surcharge[3]*	*Drought Rate[4]*	*Drought Surcharge[3]*	*Drought Rate[4]*	*Drought Surcharge[3]*	*Drought Rate[4]*	*Drought Surcharge[3]*	*Drought Rate[4]*	*Drought Surcharge[3]*	*Drought Rate[4]*
No Conservation	$0.00	$7.62	$0.00	$8.45	$0.00	$9.37	$0.00	$9.91	$0.00	$10.38
Up to 10%	$0.35	$7.97	$0.44	$8.89	$0.53	$9.90	$0.58	$10.49	$0.62	$11.00
Up to 20%	$0.79	$8.41	$0.98	$9.43	$1.19	$10.56	$1.30	$11.21	$1.39	$11.78
Up to 30%	$1.36	$8.98	$1.68	$10.13	$2.03	$11.41	$2.23	$12.14	$2.39	$12.77
Up to 40%	$2.12	$9.73	$2.61	$11.07	$3.16	$12.54	$3.46	$13.38	$3.71	$14.10
Up to 50%	$3.17	$10.79	$3.92	$12.37	$4.75	$14.12	$5.20	$15.11	$5.57	$15.95
>50%	$4.76	$12.38	$5.88	$14.33	$7.12	$16.49	$7.79	$17.70	$8.36	$18.74

1. ACTIVATION - The Drought Surcharge will NOT be added on water bills unless approved by the City Council. If the surcharge is activated, it will remain in effect as necessary and will be reviewed by the City Council at least monthly for a determination of necessity until the surcharge is deactivated.
2. Baseline water consumption is based on water usage for FY 2020/21, the same assumption used in the proposed volumetric rates.
3. Drought Surcharge is added to the Uniform Rate on a per unit basis to cover the cost of water service during times of State mandated conservation and/or extreme water supply shortage, resulting in water consumption below the established baseline.
4. The Drought Rate equals the Volumetric Rate plus Volumetric Surcharge. This does not include pumping charges which will apply where applicable.

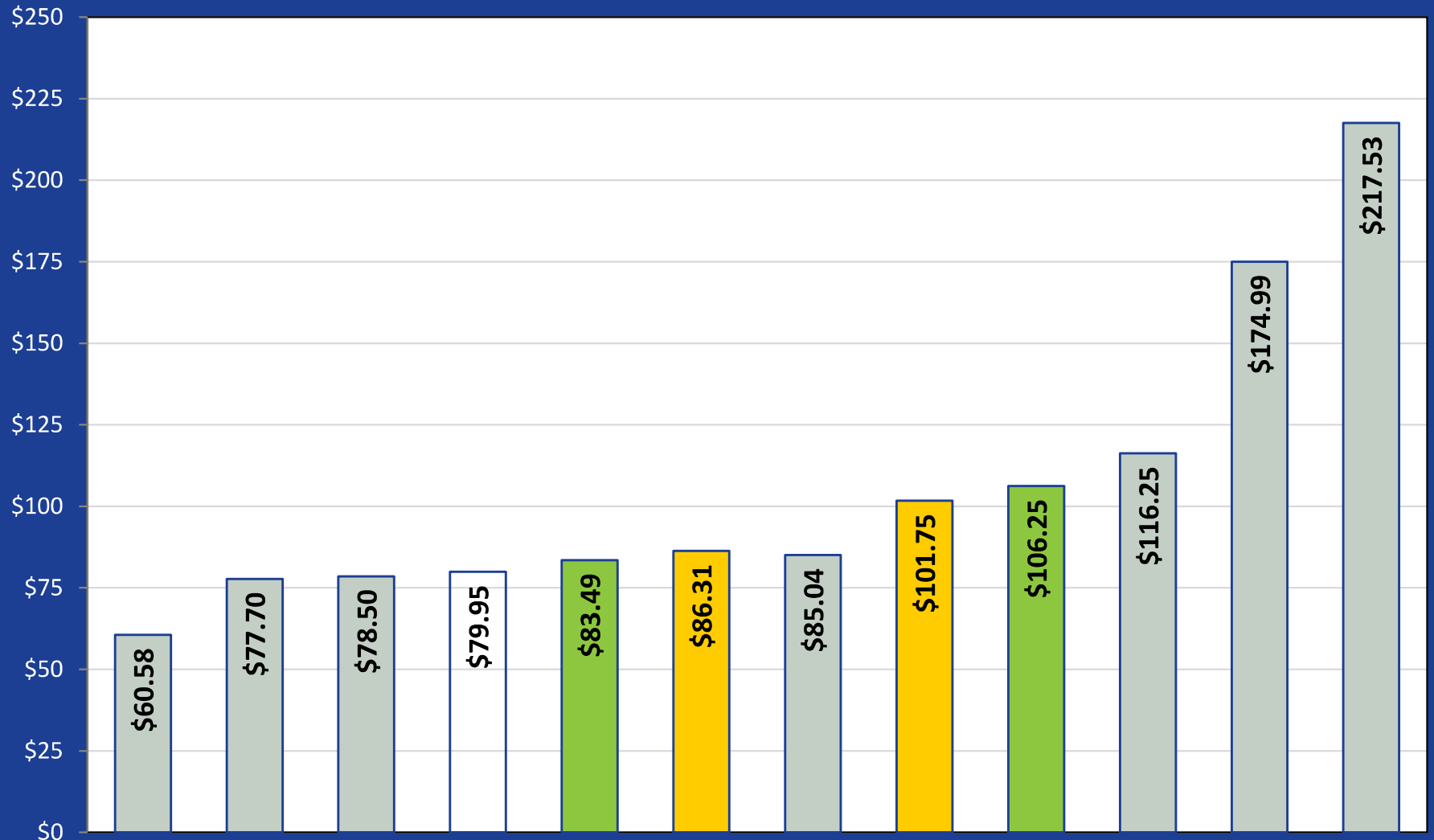
City of American Canyon (Year 1)
Annual Water Bill Comparison - Single Family Accounts



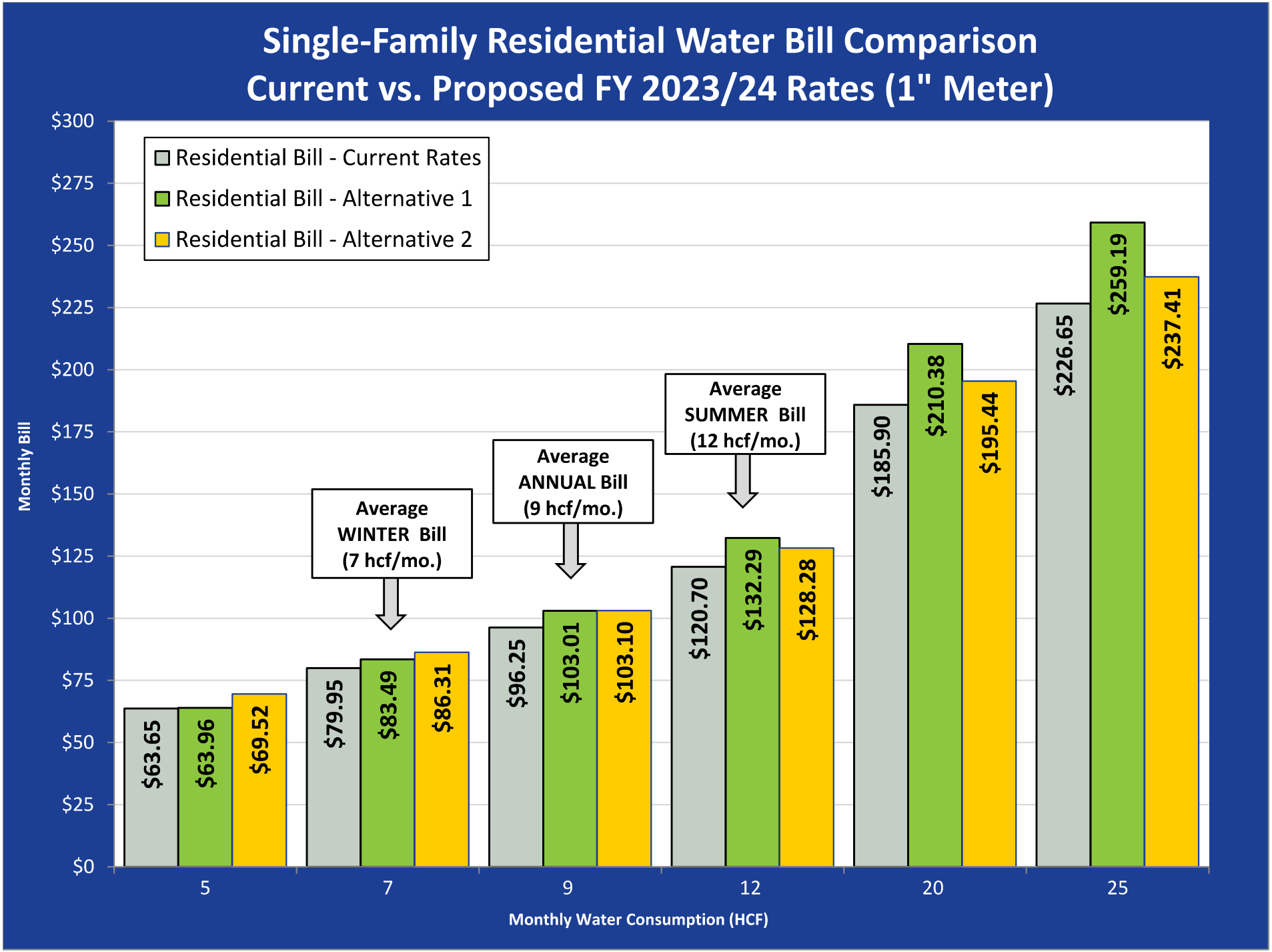
City of American Canyon (Year 1 & 5)
Monthly Water Bill Comparison - Single Family Accounts



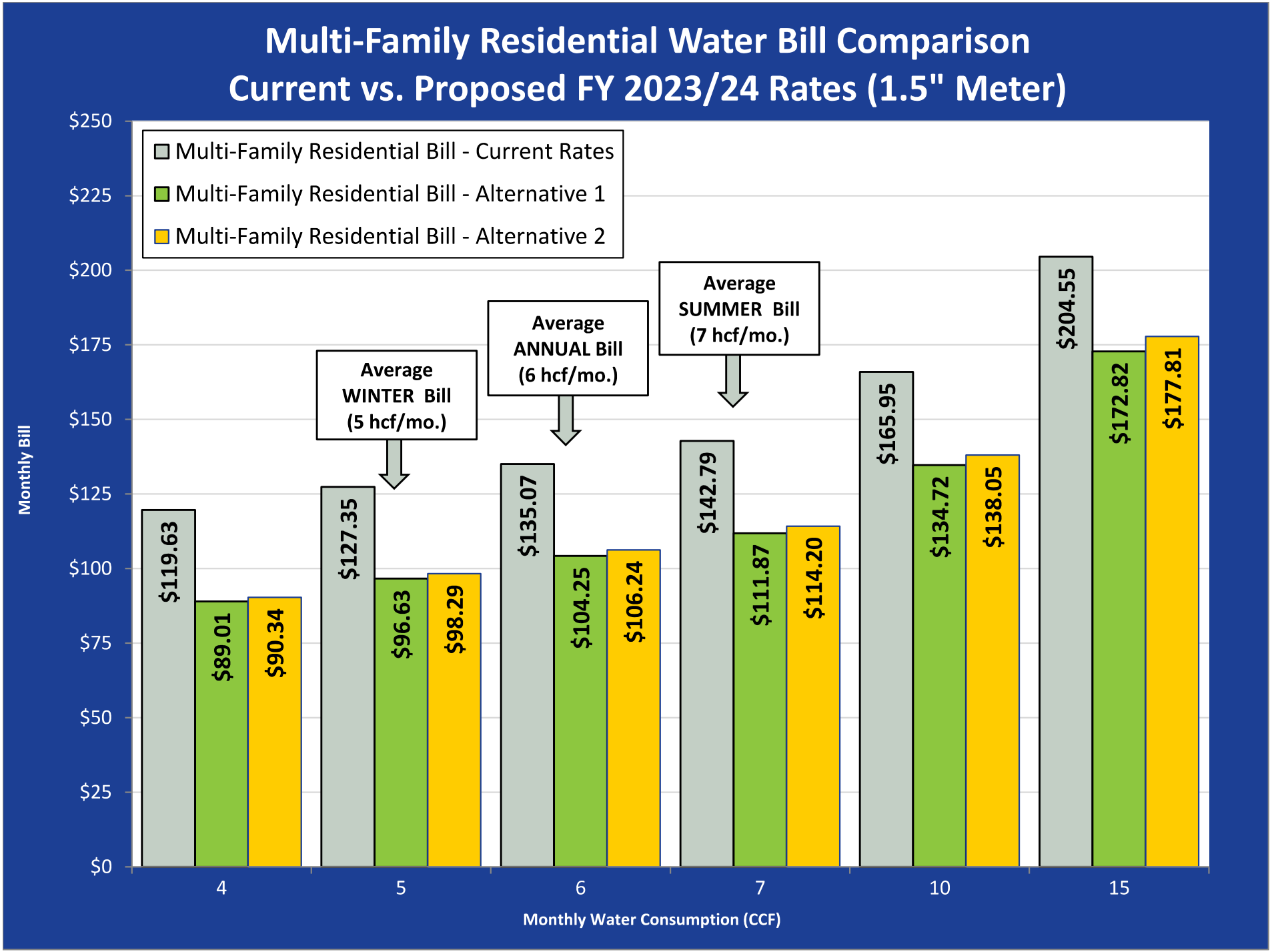
City of American Canyon (Year 1 & 5)
Monthly Water Bill Comparison - Single Family Accounts



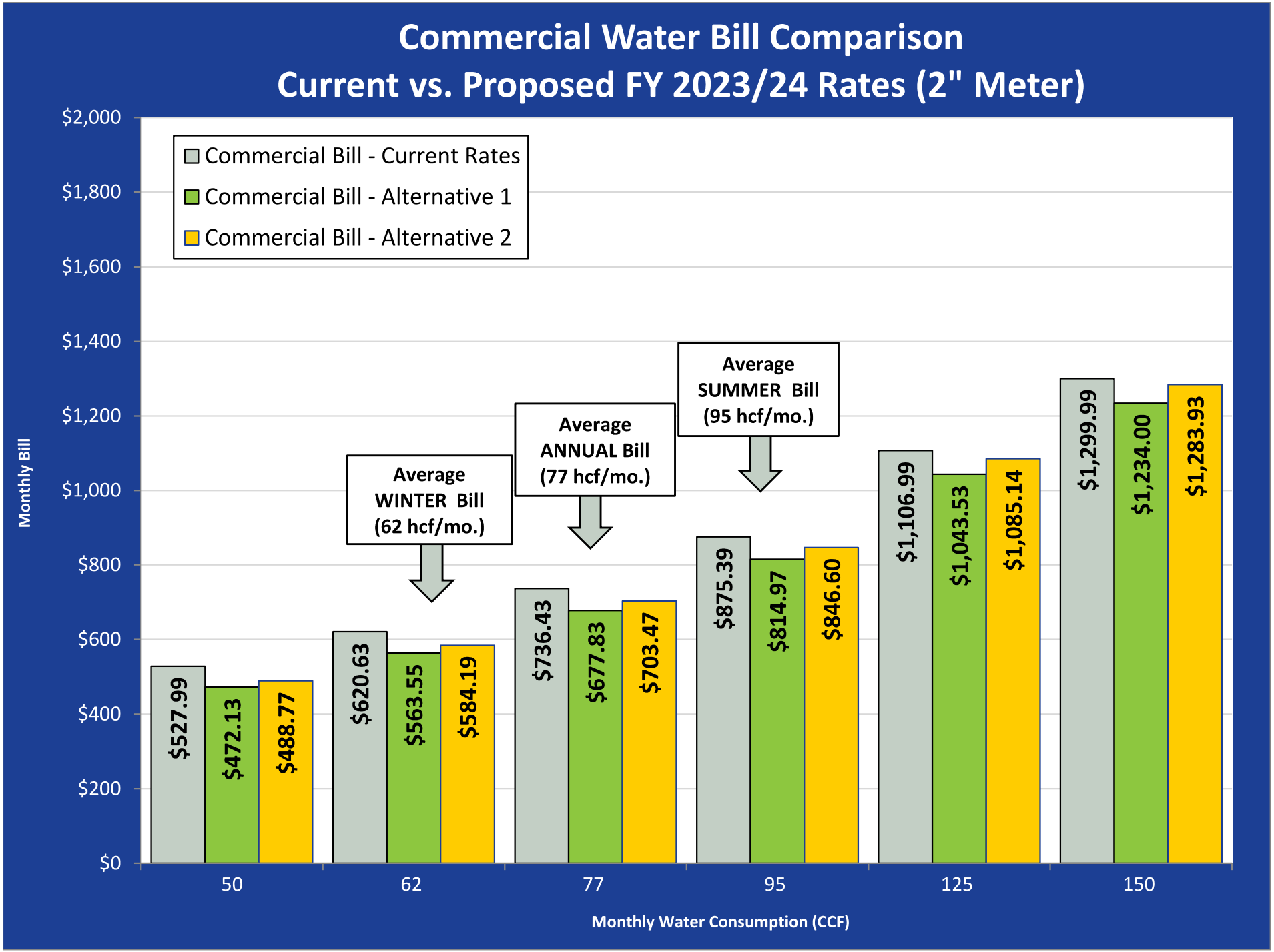
Single-Family Residential Water Bill Comparison
Current vs. Proposed FY 2023/24 Rates (1" Meter)



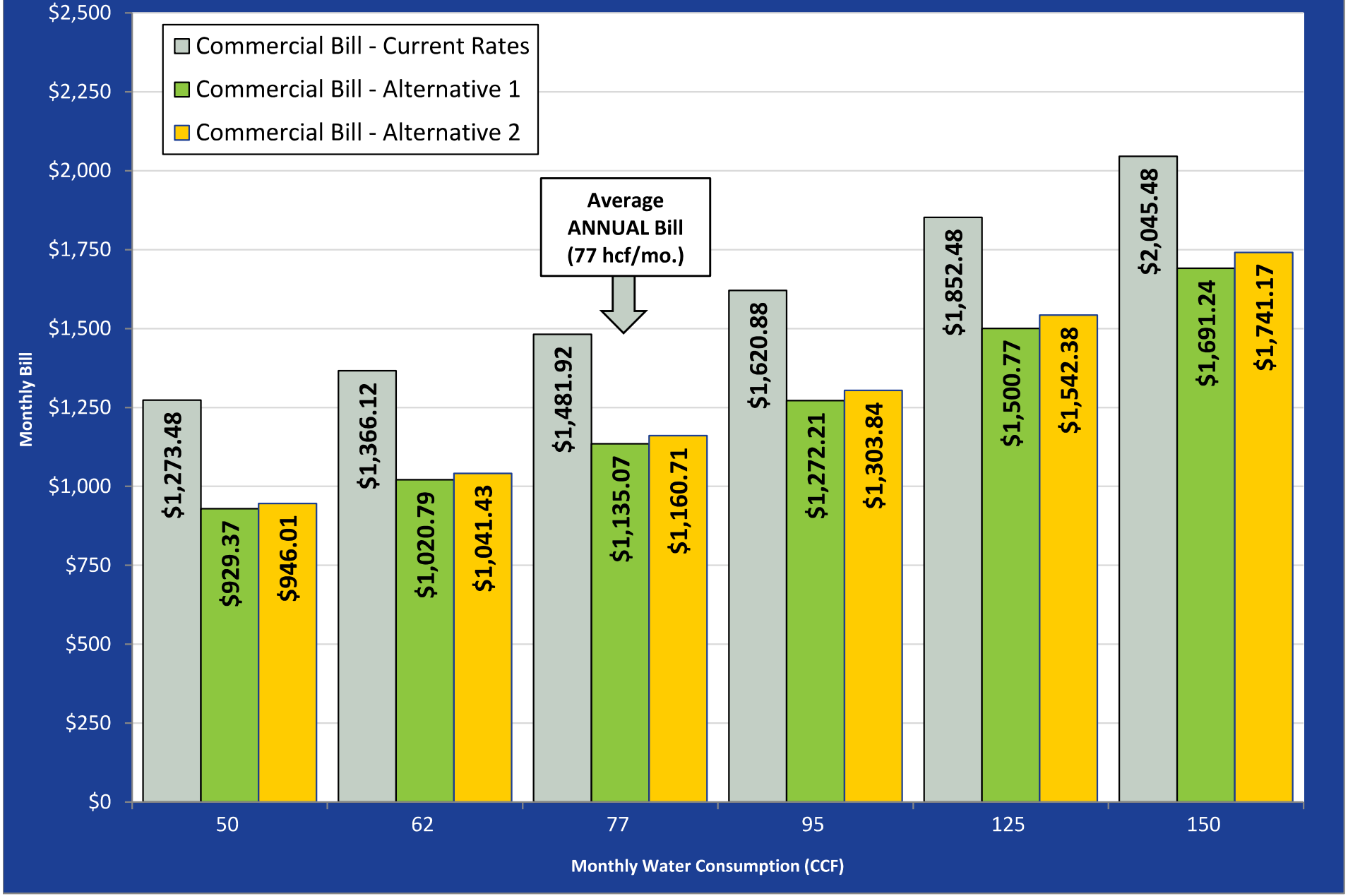
Multi-Family Residential Water Bill Comparison
Current vs. Proposed FY 2023/24 Rates (1.5" Meter)



Commercial Water Bill Comparison
Current vs. Proposed FY 2023/24 Rates (2" Meter)



Commercial Water Bill Comparison
Current vs. Proposed FY 2023/24 Rates (6" Meter)



Appendix B. Recycled Water Rate Study Tables and Figures

TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY	Actuals	Actuals	5-Year Projected Rate Period					Projected				
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Sources of Water Funds												
Rate Revenue: [1]												
Water Sales - Recycled Water Charges	$ 151,038	$ 226,361	$ 207,000	$ 210,726	$ 214,308	$ 217,952	$ 221,657	$ 225,425	$ 229,257	$ 232,925	$ 236,652	$ 240,439
Non-Rate Revenue:												
Interest Earnings[2]	4,101	12,392	22,343	2,195	7,873	4,912	2,640	842	-	-	-	-
Total Sources of Funds	**$ 155,140**	**$ 238,753**	**$ 229,343**	**$ 212,921**	**$ 222,182**	**$ 222,864**	**$ 224,297**	**$ 226,267**	**$ 229,257**	**$ 232,925**	**$ 236,652**	**$ 240,439**
Uses of Water Funds												
Operating Expenses: [1]												
Water Operations:												
Fund 580 - Recycled Water Operations	$ 272,644	$ 1,632,152	$ 893,163	$ 797,921	$ 823,477	$ 849,857	$ 877,086	$ 905,193	$ 934,206	$ 964,155	$ 995,069	$ 1,026,980
Other Expenditures:												
Existing Debt Service	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interfund Loan Repayment[3]	-	-	198,566	198,566	267,497	267,497	267,497	267,497	267,497	267,497	267,497	267,497
Rate-Funded Capital Expenses	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Other Expenditures	$ -	$ -	$ 198,566	$ 198,566	$ 267,497	$ 267,497	$ 267,497	$ 267,497	$ 267,497	$ 267,497	$ 267,497	$ 267,497
Total Uses of Water Funds	**$ 272,644**	**$ 1,632,152**	**$ 1,091,728**	**$ 996,487**	**$ 1,090,974**	**$ 1,117,354**	**$ 1,144,583**	**$ 1,172,690**	**$ 1,201,703**	**$ 1,231,652**	**$ 1,262,566**	**$ 1,294,477**
plus: Revenue from Rate Increases[4]	-	-	129,375	563,692	652,033	728,149	788,637	827,104	841,165	854,623	868,297	882,190
Annual Surplus/(Deficit)	**$ (117,504)**	**$ (1,393,399)**	**$ (733,011)**	**$ (219,874)**	**$ (216,759)**	**$ (166,341)**	**$ (131,650)**	**$ (119,320)**	**$ (131,281)**	**$ (144,103)**	**$ (157,617)**	**$ (171,849)**
Net Revenue Req't. *(Total Uses less Non-Rate Revenue)*	**$ 268,543**	**$ 1,619,760**	**$ 1,069,386**	**$ 994,292**	**$ 1,083,101**	**$ 1,112,441**	**$ 1,141,943**	**$ 1,171,848**	**$ 1,201,703**	**$ 1,231,652**	**$ 1,262,566**	**$ 1,294,477**
Total Rate Revenue After Rate Increases	**$ 151,038**	**$ 226,361**	**$ 724,500**	**$ 811,295**	**$ 907,596**	**$ 969,176**	**$ 1,034,935**	**$ 1,052,529**	**$ 1,070,422**	**$ 1,087,548**	**$ 1,104,949**	**$ 1,122,628**
Projected Annual Rate Revenue Increase	***0.00%***	***0.00%***	***250.00%***	***10.00%***	***10.00%***	***5.00%***	***5.00%***	***0.00%***	***0.00%***	***0.00%***	***0.00%***	***0.00%***
Cumulative Increase from Annual Revenue Increases	*0.00%*	*0.00%*	*250.00%*	*285.00%*	*323.50%*	*344.68%*	*366.91%*	*366.91%*	*366.91%*	*366.91%*	*366.91%*	*366.91%*

1. Revenue and expenses for FY 2021/22 through FY 2023/24 provided by the City. Revenues and expenses for all other years are escalated based on the forecasting assumptions located in Table 61. Source files: *Fund 580 Recycled Water Operations.xlsx & FY2023-24 Exp Budget Recycled Water.xlsx* .
2. Interest earnings for FY 2021/22 and FY 2022/23 are from the City's Budget. For all other years, it is calculated based on historical LAIF returns.
3. Repayment of interfund loans advanced by Wastewater Capacity 550 to Recycled Water Operations 540 for various project. See *Exhibit 3 (Debt)* for more details.
4. Revenue from rate increases assumes an implementation date of April 1, 2024 for new rates. For each year thereafter, the assumption is that new rates will be implemented on January 1st of each year.

1	*<-- Select Financial Plan Scenario Here*

Financial Plan Alternatives		FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
1	Alternative 1 - Full Cost Recovery Rate Increases[1]	*0.00%*	*0.00%*	*250.00%*	*10.00%*	*10.00%*	*5.00%*	*5.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
2	Alternative 2 - Phased-in Rate Increases[2]	*0.00%*	*0.00%*	*20.00%*	*20.00%*	*5.00%*	*2.00%*	*2.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
3	Alternative 3 - Minimal Rate Increases[3]	*0.00%*	*0.00%*	*15.00%*	*15.00%*	*10.00%*	*5.00%*	*5.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
4	Alternative 4 - No Rate Increases	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*

1. Alternative 1: Scenario 1 - Rates needed to meet all revenue requirements and meet the target reserve levels (Large increase followed by smaller increases).
2. Alternative 2: Scenario 2 - Large increases phased In over two years, followed by smaller increases (Reserves drop below target level).
3. Alternative 3: Scenario 3 - Smaller increases (Reserves drop below target level).

TABLE 2 : RESERVE FUND SUMMARY

SUMMARY OF CASH ACTIVITY	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Unrestricted Reserve:												
Total Beginning Cash[1]	**$ 105,383**	**$ 549,510**										
Operating Reserve												
Beginning Reserve Balance	$ 105,383	$ 549,510	$ 650,000	$ (83,011)	$ (302,885)	$ (519,644)	$ (685,985)	$ (817,634)	$ (936,954)	$ (1,068,236)	$ (1,212,339)	$ (1,369,955)
Plus: Net Cash Flow (After Rate Increases)	(117,504)	(1,393,399)	(733,011)	(219,874)	(216,759)	(166,341)	(131,650)	(119,320)	(131,281)	(144,103)	(157,617)	(171,849)
Plus: Transfer in from Capital and Infrastructure Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Less: Transfer out to Capital and Infrastructure Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Ending Operating Reserve Balance	***$ (12,121)***	***$ (843,889)***	***$ (83,011)***	***$ (302,885)***	***$ (519,644)***	***$ (685,985)***	***$ (817,634)***	***$ (936,954)***	***$ (1,068,236)***	***$ (1,212,339)***	***$ (1,369,955)***	***$ (1,541,804)***
Target Ending Balance (90-days of O&M)[2]	*$ 68,000*	*$ 408,000*	*$ 223,000*	*$ 199,000*	*$ 206,000*	*$ 212,000*	*$ 219,000*	*$ 226,000*	*$ 234,000*	*$ 241,000*	*$ 249,000*	*$ 257,000*
Capital Rehabilitation & Replacement Reserve												
Beginning Reserve Balance	$ -	$ -	$ 243,704	$ 243,704	$ 879,258	$ 879,258	$ 879,258	$ 879,258	$ 879,258	$ 879,258	$ 879,258	$ 879,258
Plus: Transfer of Operating Reserve Surplus	-	-	-	-	-	-	-	-	-	-	-	-
Less: Transfer out to Operating Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Less: Use of Reserves for Capital Projects	-	-	-	-	-	-	-	-	-	-	-	-
Ending Capital and Infrastructure Reserve Balance	***$ -***	***$ 243,704***	***$ 243,704***	***$ 879,258***	***$ 879,258***	***$ 879,258***	***$ 879,258***	***$ 879,258***	***$ 879,258***	***$ 879,258***	***$ 879,258***	***$ 879,258***
Target Ending Balance (3% of net assets)[3]	*$ 1,420,700*	*$ 1,548,600*	*$ 1,870,900*	*$ 2,079,900*	*$ 2,260,500*	*$ 2,370,700*	*$ 2,458,100*	*$ 2,548,200*	*$ 2,641,000*	*$ 2,736,700*	*$ 2,835,300*	*$ 2,937,000*
Ending Balance - Excl. Restricted Reserves	***$ (12,121)***	***$ (600,185)***	***$ 160,693***	***$ 576,373***	***$ 359,614***	***$ 193,273***	***$ 61,624***	***$ (57,696)***	***$ (188,977)***	***$ (333,081)***	***$ (490,697)***	***$ (662,546)***
Min. Target Ending Balance -Excl. Restricted Reserves	***$ 1,488,700***	***$ 1,956,600***	***$ 2,093,900***	***$ 2,278,900***	***$ 2,466,500***	***$ 2,582,700***	***$ 2,677,100***	***$ 2,774,200***	***$ 2,875,000***	***$ 2,977,700***	***$ 3,084,300***	***$ 3,194,000***
Ending Surplus/(Deficit) Compared to Reserve Targets	***$ (1,500,821)***	***$ (2,556,785)***	***$ (1,933,207)***	***$ (1,702,527)***	***$ (2,106,886)***	***$ (2,389,427)***	***$ (2,615,476)***	***$ (2,831,896)***	***$ (3,063,977)***	***$ (3,310,781)***	***$ (3,574,997)***	***$ (3,856,546)***
Annual Interest Earnings Rate[4]	*1.37%*	*2.50%*	*2.50%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*

1. Beginning cash balances provided by City staff for Fund 580 - Recycled Water Operations. Source file: *4 - Current Cash and Fund Balance - Recycled Water 12062021.xlsx* , *Beg Fund Balance FY23- Water.xls* , & *Beg Fund Balance FY23- Recycled Water.xls* .
2. The target ending balance is set equal to 90-days of O&M expenses. Source file: *4 - Current Cash and Fund Balance - Water 12062021.xlsx* .
3. The target ending balance is set equal to 3% of net capital assets. See *Exhibit 2 (CIP)* for details.
4. Historical interest earning rates are per the average annual yields for funds invested in LAIF (2017-2021). The source is the California State Treasurer's website: *https://www.treasurer.ca.gov/pmia-laif/historical/annual.asp* .

CHART 1

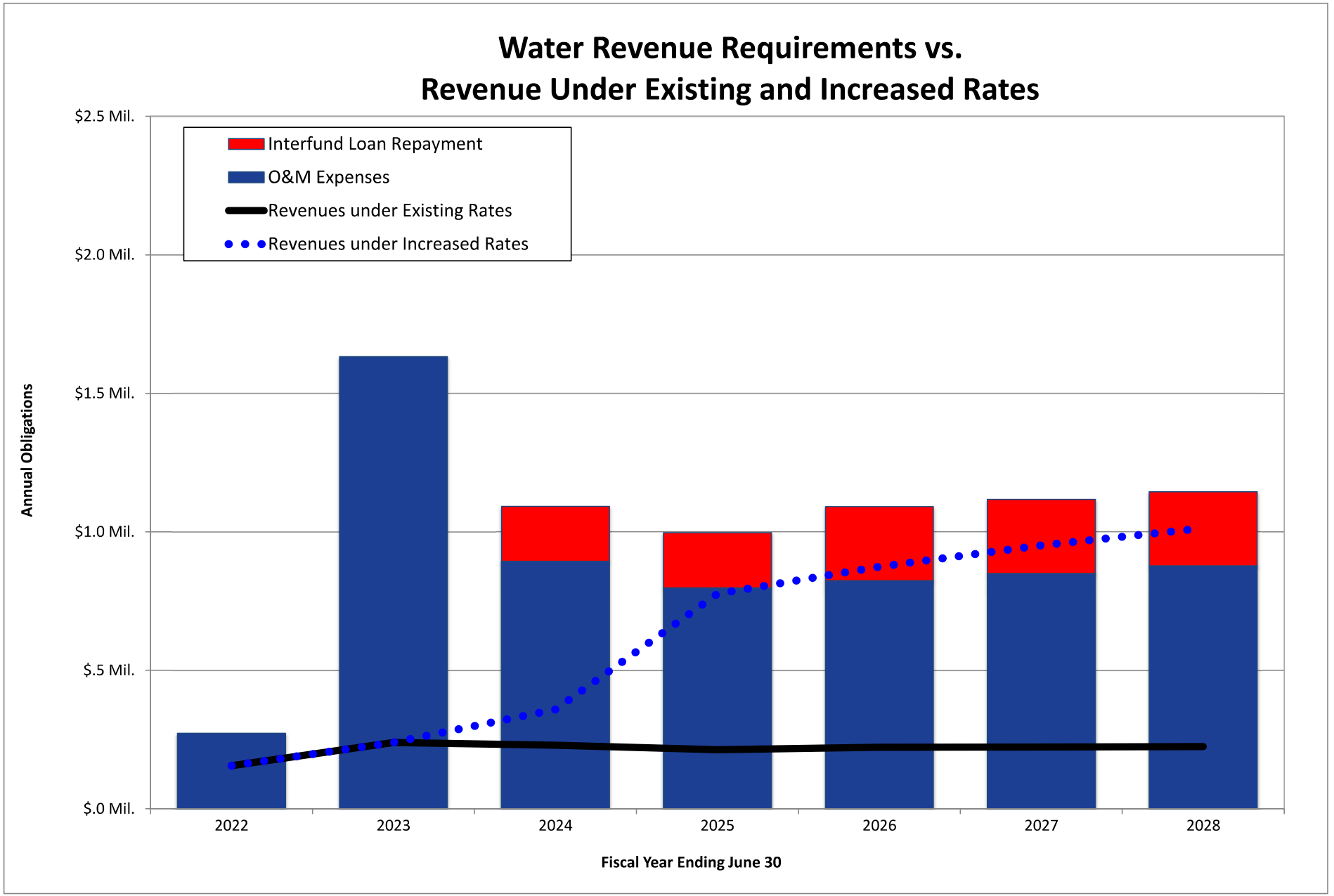

Water Revenue Requirements vs.
Revenue Under Existing and Increased Rates
Interfund Loan Repayment
O&M Expenses
Revenues under Existing Rates
Revenues under Increased Rates
$2.5 Mil.
$2.0 Mil.
$1.5 Mil.
$1.0 Mil.
$.5 Mil.
$.0 Mil.
Annual Obligations
2022
2023
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

CHART 2

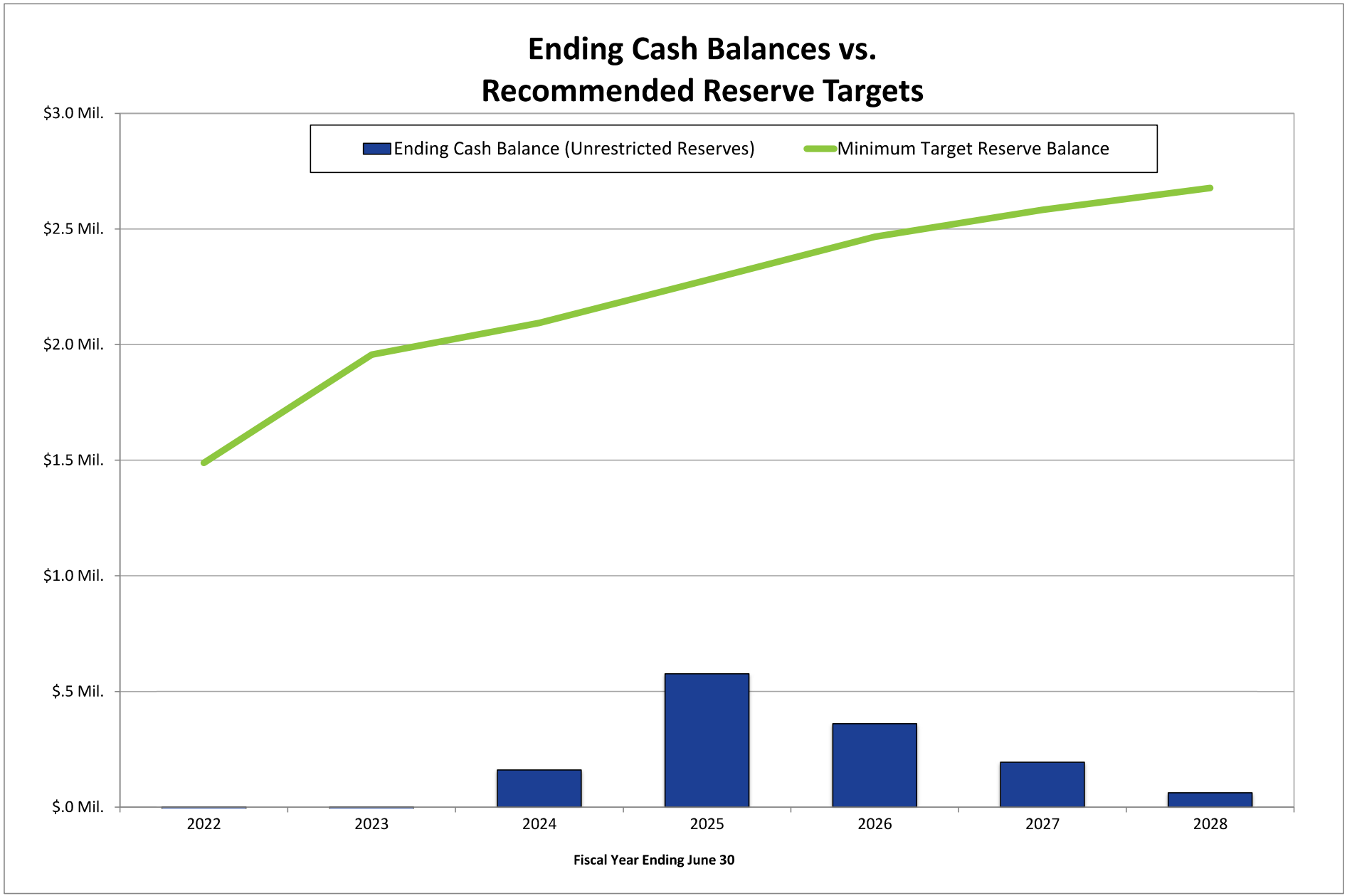

Ending Cash Balances vs.
Recommended Reserve Targets
$3.0 Mil.
$2.5 Mil.
$2.0 Mil.
$1.5 Mil.
$1.0 Mil.
$.5 Mil.
$.0 Mil.
Ending Cash Balance (Unrestricted Reserves)
Minimum Target Reserve Balance
2022
2023
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

CHART 3

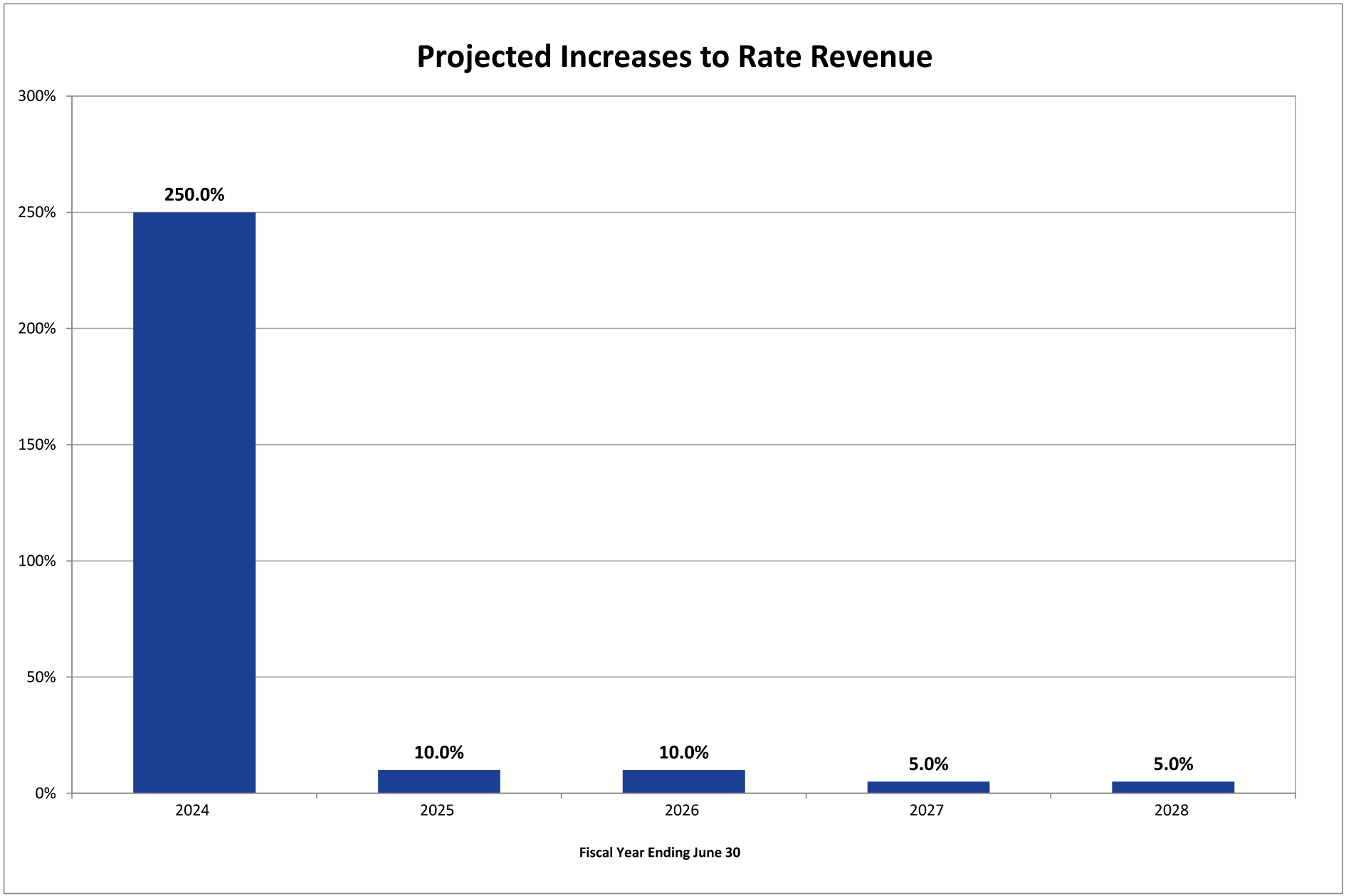

Projected Increases to Rate Revenue
300%
250%
200%
150%
100%
50%
0%
250.0%
10.0%
10.0%
5.0%
5.0%
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

TABLE 3 : REVENUE FORECAST[1]

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Rate Revenue													
Water Service Charge - Recycled Water	1	$ 151,038	$ 226,361	$ 207,000	$ 210,726	$ 214,308	$ 217,952	$ 221,657	$ 225,425	$ 229,257	$ 232,925	$ 236,652	$ 240,439
Other Revenue													
Interest Earnings	See FP	4,101	12,392	-	-	-	-	-	-	-	-	-	-
TOTAL: REVENUE		**$ 155,140**	**$ 238,753**	**$ 207,000**	**$ 210,726**	**$ 214,308**	**$ 217,952**	**$ 221,657**	**$ 225,425**	**$ 229,257**	**$ 232,925**	**$ 236,652**	**$ 240,439**

TABLE 4 : OPERATING EXPENSE FORECAST[1]

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Fund 580 - Recycled Water Operations													
Wages - Full time	3	$ -	$ 217	$ 209,085	$ 216,403	$ 223,977	$ 231,816	$ 239,930	$ 248,327	$ 257,019	$ 266,015	$ 275,325	$ 284,961
Health Insurance	3	-	-	35,576	36,821	38,109	39,443	40,824	42,253	43,731	45,262	46,846	48,486
Health-In_Lieu	3	-	-	2,280	2,360	2,442	2,528	2,616	2,708	2,803	2,901	3,002	3,107
Cafeteria Plan Section 125	3	-	-	9,599	9,935	10,282	10,642	11,015	11,400	11,799	12,212	12,640	13,082
PERS Retirement	3	-	1,246	26,843	27,782	28,755	29,761	30,803	31,881	32,997	34,152	35,347	36,584
Benefits - Other	3	-	-	471	488	505	522	541	560	579	599	620	642
Social Security & Medicare	3	-	3	3,204	3,316	3,432	3,552	3,677	3,805	3,938	4,076	4,219	4,367
Worker Comp Insurance	3	-	526	22,467	23,254	24,067	24,910	25,782	26,684	27,618	28,585	29,585	30,621
Info Tech Support Services	2	-	-	54,000	55,620	57,289	59,007	60,777	62,601	64,479	66,413	68,406	70,458
Professional Services	2	13,511	16,694	51,000	52,530	54,106	55,729	57,401	59,123	60,897	62,724	64,605	66,543
Misc Contractual Services	2	-	117,361	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610
Temp Agency Services	2	-	-	-	-	-	-	-	-	-	-	-	-
General Repairs & Maint	2	-	727	20,000	20,600	21,218	21,855	22,510	23,185	23,881	24,597	25,335	26,095
Postage/Mail/Copy/Printing Svc	2	-	36	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
Membership Dues & Subscription	2	-	-	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305
Conferences - Training	2	-	-	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610
Office Supplies	2	-	-	500	515	530	546	563	580	597	615	633	652
Operating Supplies	2	-	7,594	123,000	126,690	130,491	134,405	138,438	142,591	146,868	151,274	155,813	160,487
AC Recycled Water	2	36,360	18,437	-	-	-	-	-	-	-	-	-	-
Depreciation	2	222,773	222,255	-	-	-	-	-	-	-	-	-	-
Depreciation - Infrastructure	2	-	-	-	-	-	-	-	-	-	-	-	-
Vehicles	2	-	-	-	-	-	-	-	-	-	-	-	-
Major Equipment	8	-	-	70,000	-	-	-	-	-	-	-	-	-
Transfers Out To Other Funds	8	-	1,196,580	50,000	-	-	-	-	-	-	-	-	-
Retiree Health Benefits	3	-	134	1,973	2,042	2,114	2,188	2,264	2,344	2,426	2,510	2,598	2,689
OPEB	3	-	1,115	1,251	1,295	1,340	1,387	1,436	1,486	1,538	1,592	1,647	1,705
ISF - Bldg Maint	2	-	26,844	39,873	41,069	42,301	43,570	44,877	46,224	47,610	49,039	50,510	52,025
ISF - Legal Services	2	-	514	23,705	24,416	25,149	25,903	26,680	27,481	28,305	29,154	30,029	30,930
Capital Outlay-Contra Account	8	-	-	-	-	-	-	-	-	-	-	-	-
Transfer to Gen Fnd Support Sv	2	-	21,869	138,336	142,486	146,761	151,163	155,698	160,369	165,180	170,136	175,240	180,497
Interest Payments for Internal Loans	See Exh. 3	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL: RECYCLED WATER OPERATIONS EXPENSES		**$ 272,644**	**$ 1,632,152**	**$ 893,163**	**$ 797,921**	**$ 823,477**	**$ 849,857**	**$ 877,086**	**$ 905,193**	**$ 934,206**	**$ 964,155**	**$ 995,069**	**$ 1,026,980**

TABLE 5 : FORECASTING ASSUMPTIONS

INFLATION FACTORS[2]	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer Growth[3]	1	--	1.80%	1.80%	1.80%	1.70%	1.70%	1.70%	1.70%	1.70%	1.60%	1.60%	1.60%
General Cost Inflation[4]	2	--	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Labor Cost Inflation[5]	3	--	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Energy[6]	4	--	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%
Electricty[7]	5	--	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%
Fuel & Utilities[8]	6	--	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%
Construction Cost Inflation[9]	7	--	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
No Escalation	8	--	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Revenue and expenses for FY 2021/22 through FY 2023/24 provided by the City. Revenues and expenses for all other years are escalated based on the forecasting assumptions located in Table 61. Source files: *Fund 580 Recycled Water Operations.xlsx* & *FY2023-24 Exp Budget Recycled Water.*
2. Expenses are inflated each year by the following annual inflation factor categories.
3. Customer growth is based on service area population growth through FY 2039/40. Source file: *American Canyon 2015 UWMP.pdf* , page 26.
4. General cost inflation is based on the 5-year average annual change in the Consumer Price Index for all Urban Consumers in the San Francisco-Oakland-Hayward, CA area.
5. Labor cost inflation is based on the 5-year average annual change in the Quarterly Census of Employment and Wages for San Francisco County, CA.
6. Energy cost inflation is based on the 5-year average annual change in the Consumer Price Index for all Urban Consumers in the San Francisco-Oakland-Hayward, CA area.
7. Electricity cost inflation is based on the 5-year average change in the Consumer Price Index for San Francisco County.
8. Fuel & Utilities cost inflation is based on the 5-year average annual change in the Consumer Price Index - Average Price Data for Fuels and related products and power. This factor is used for utility costs other than electricity.
9. Construction cost Inflation is the 10-year average change in the Construction Cost Index for 2012-2022. Source: Engineering News Record website (*http://enr.construction.com*).

TABLE 6 : CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST	Actuals	Actuals	5-Year Projected Rate Period					Projected				
Funding Sources:	**FY 2021/22**	**FY 2022/23**	**FY 2023/24**	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**	**FY 2028/29**	**FY 2029/30**	**FY 2030/31**	**FY 2031/32**	**FY 2032/33**
Grants[1]	$ 235,463	$ 243,704	$ 385,279	$ 635,554	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Use of Capacity Fee Reserves	-	-	-	16,812	1,989,375	2,059,003	2,131,068	1,756,623	1,818,105	1,881,739	1,947,600	2,015,766
SRF Loan Funding	-	-	-	-	-	-	-	-	-	-	-	-
Use of New Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Use of Capital Rehabilitation and Replacement Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Rate Revenue	-	-	-	-	-	-	-	-	-	-	-	-
Total Sources of Capital Funds	**$ 235,463**	**$ 243,704**	**$ 385,279**	**$ 652,367**	**$ 1,989,375**	**$ 2,059,003**	**$ 2,131,068**	**$ 1,756,623**	**$ 1,818,105**	**$ 1,881,739**	**$ 1,947,600**	**$ 2,015,766**
Uses of Capital Funds:												
Total Project Costs	$ 235,463	$ 243,704	$ 385,279	$ 652,367	$ 1,989,375	$ 2,059,003	$ 2,131,068	$ 1,756,623	$ 1,818,105	$ 1,881,739	$ 1,947,600	$ 2,015,766
Capital Funding Surplus (Deficiency)	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

1. Grant from American Rescue Plan Act (ARPA) Funds through Napa County for the Recycled Water System Expansion Project (RW17-0100). Source file: *RESOLUTION 2022-58.pdf* .

CAPITAL IMPROVEMENT PROGRAM FUNDING OPTIONS

Capital Improvement Program Funding Choice	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Effective Annual Funding Amount	$ 235,463	$ 243,704	$ 385,279	$ 652,367	$ 1,989,375	$ 2,059,003	$ 2,131,068	$ 1,756,623	$ 1,818,105	$ 1,881,739	$ 1,947,600	$ 2,015,766

CAPITAL IMPROVEMENT PROGRAM

TABLE 7 : CAPITAL IMPROVEMENT PROGRAM COSTS (*in Current-Year Dollars*)[1]

Project No.	Description	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Capital Projects [2]													
NEW	Recycled Water Fill Stations	$ -	$ -	$ 120,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Master Plan Projects - Recycled Water [3]													
RW1	Tower / Devlin / South Kelly Road	$ 137,500	$ 137,500	$ 137,500	$ 137,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
RW2	Spikerush Circle	31,000	31,000	31,000	31,000	-	-	-	-	-	-	-	-
RW3	Benton Way	59,000	59,000	59,000	59,000	-	-	-	-	-	-	-	-
RW4	Pelleria Drive	-	-	-	32,000	32,000	32,000	32,000	-	-	-	-	-
RW5	Jim Oswald Way / Mezzetta Court / Green Island Road	-	-	-	121,000	121,000	121,000	121,000	-	-	-	-	-
RW6	Hanna Drive	-	-	-	76,000	76,000	76,000	76,000	-	-	-	-	-
RW7	Dodd / Klamath Court	-	-	-	24,000	24,000	24,000	24,000	-	-	-	-	-
RW8	Lombard / Hess Road	-	-	-	88,000	88,000	88,000	88,000	-	-	-	-	-
RW9	Watson Lane	-	-	-	-	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000
RW10	Main / South Napa Junction Road	-	-	-	-	299,000	299,000	299,000	299,000	299,000	299,000	299,000	299,000
RW11	Newell Drive	-	-	-	-	205,000	205,000	205,000	205,000	205,000	205,000	205,000	205,000
RW12	PS Upgrade	-	-	-	-	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000
RW13	Paoli Loop Road / Northern Vineyards	-	-	-	-	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
RW14	Eucalyptus Drive	-	-	-	-	128,000	128,000	128,000	128,000	128,000	128,000	128,000	128,000
RW15	Broadway / Donaldson Way	-	-	-	-	347,000	347,000	347,000	347,000	347,000	347,000	347,000	347,000
Estimated Future Projects													
Future Projects[4]		-	-	-	-	-	-	-	-	-	-	-	-
Total: CIP Program Costs *(Future-Year Dollars)*		**$ 227,500**	**$ 227,500**	**$ 347,500**	**$ 568,500**	**$ 1,675,000**	**$ 1,675,000**	**$ 1,675,000**	**$ 1,334,000**	**$ 1,334,000**	**$ 1,334,000**	**$ 1,334,000**	**$ 1,334,000**

TABLE 8 : CAPITAL IMPROVEMENT PROGRAM COSTS (*in Future-Year Dollars*)[5]

Project No	Description	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Capital Projects [2]													
NEW	Recycled Water Fill Stations	$ -	$ -	$ 133,046	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Master Plan Projects - Recycled Water [3]													
RW1	Tower / Devlin / South Kelly Road	$ 142,313	$ 147,293	$ 152,449	$ 157,784	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
RW2	Spikerush Circle	32,085	33,208	34,370	35,573	-	-	-	-	-	-	-	-
RW3	Benton Way	61,065	63,202	65,414	67,704	-	-	-	-	-	-	-	-
RW4	Pelleria Drive	-	-	-	36,721	38,006	39,336	40,713	-	-	-	-	-
RW5	Jim Oswald Way / Mezzetta Court / Green Island Road	-	-	-	138,850	143,710	148,740	153,946	-	-	-	-	-
RW6	Hanna Drive	-	-	-	87,212	90,264	93,423	96,693	-	-	-	-	-
RW7	Dodd / Klamath Court	-	-	-	27,541	28,504	29,502	30,535	-	-	-	-	-
RW8	Lombard / Hess Road	-	-	-	100,982	104,516	108,174	111,961	-	-	-	-	-
RW9	Watson Lane	-	-	-	-	160,338	165,949	171,758	177,769	183,991	190,431	197,096	203,994
RW10	Main / South Napa Junction Road	-	-	-	-	355,118	367,547	380,411	393,726	407,506	421,769	436,531	451,810
RW11	Newell Drive	-	-	-	-	243,476	251,997	260,817	269,946	279,394	289,173	299,294	309,769
RW12	PS Upgrade	-	-	-	-	95,015	98,340	101,782	105,345	109,032	112,848	116,798	120,885
RW13	Paoli Loop Road / Northern Vineyards	-	-	-	-	166,276	172,096	178,119	184,353	190,806	197,484	204,396	211,550
RW14	Eucalyptus Drive	-	-	-	-	152,024	157,345	162,852	168,552	174,451	180,557	186,876	193,417
RW15	Broadway / Donaldson Way	-	-	-	-	412,127	426,552	441,481	456,933	472,925	489,478	506,609	524,341
Estimated Future Projects													
Future Projects[4]		-	-	-	-	-	-	-	-	-	-	-	-
Total: CIP Program Costs *(Future-Year Dollars)*		**$ 235,463**	**$ 243,704**	**$ 385,279**	**$ 652,367**	**$ 1,989,375**	**$ 2,059,003**	**$ 2,131,068**	**$ 1,756,623**	**$ 1,818,105**	**$ 1,881,739**	**$ 1,947,600**	**$ 2,015,766**

TABLE 9 : FORECASTING ASSUMPTIONS

Economic Variables	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Annual Construction Cost Inflation, Per Engineering News Record[6]	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*
Cumulative Construction Cost Multiplier from FY 2021/22	*1.04*	*1.07*	*1.11*	*1.15*	*1.19*	*1.23*	*1.27*	*1.32*	*1.36*	*1.41*	*1.46*	*1.51*

1. Capital project costs were provided by City Staff in source file: *Water Projects.pdf.*
2. Capital projects costs for FY 2021/22 and FY 2022/23 are from source files: 11. *CIP Budget vs Expense Report FY 2021-2022 through Oct 2021.pdf* .
3. The City's Recycled Water Master Plan projects were scheduled to begin in 2016; however, the study only includes costs from FY 2021/22 through FY 2034/35. Source file: *2016 Recycled Water Master Plan.pdf* , page 63.
4. Future project costs beyond FY 2034/35 are calculated based on the City's 10-year average.
5. Capital improvement projects are inflated to future year estimated costs with ENR CCI for the region. Source: Engineering News Record website (*http://enr.construction.com*).
6. For reference purposes, the annual Construction Cost Inflation percentage is the 10-year average change in the Construction Cost Index for September 2012-2022 (3.5%). Source: Engineering News Record website *(http://enr.construction.com).*

TABLE 10 : EXISTING DEBT OBLIGATIONS

EXISTING DEBT OBLIGATIONS	Actuals	Actuals	5-Year Projected Rate Period					Projected				
Annual Repayment Schedules:	**FY 2021/22**	**FY 2022/23**	**FY 2023/24**	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**	**FY 2028/29**	**FY 2029/30**	**FY 2030/31**	**FY 2031/32**	**FY 2032/33**
Interfund Loans												
Water Operations to Recycled Water Fund												
Advance from Water Operations 510 to Recycled Water Operations 580												
Original Loan Amount (June 20, 2023)	**$ 1,136,140**											
Accrued Interest (LAIF Rate + 2%)	**981**											
Annual Debt Service[1]			*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*	*$44,061*
Water Operations to Recycled Water Fund												
Advance from Water Operations 510 to Recycled Water Operations 580												
Original Loan Amount (September 21, 2021)	**$ 128,189**											
Accrued Interest (LAIF Rate + 2%)	**11,706**											
Annual Debt Service[2]					*$ 5,421*	*$ 5,421*	*$ 5,421*	*$ 5,421*	*$ 5,421*	*$ 5,421*	*$ 5,421*	*$ 5,421*
Wastewater Capacity to Recycled Water Fund												
Advance from WW Capacity 550 to Recycled Water Operations 580												
Original Loan Amount (March 17, 2011)	**$ 1,070,000**											
Accrued Interest (LAIF Rate + 2%)	**205,869**											
Annual Debt Service[3]					*$ 49,438*	*$ 49,438*	*$ 49,438*	*$ 49,438*	*$ 49,438*	*$ 49,438*	*$ 49,438*	*$ 49,438*
Wastewater Capacity to Recycled Water Fund												
Advance from WW Capacity 550 to Recycled Water Operations 580												
Original Loan Amount (December 15, 2009)	**$ 304,614**											
Accrued Interest (LAIF Rate + 2%)	**58,577**											
Annual Debt Service[4]					*$ 14,073*	*$ 14,073*	*$ 14,073*	*$ 14,073*	*$ 14,073*	*$ 14,073*	*$ 14,073*	*$ 14,073*
Wastewater Capacity to Recycled Water Fund												
Advance from WW Capacity 550 to Recycled Water Operations 580												
Original Loan Amount (December 15, 2009)	**$ 3,532,410**											
Accrued Interest (LAIF Rate + 2%)	**454,994**											
Annual Debt Service[5]			*$ 154,504*	*$ 154,504*	*$ 154,504*	*$ 154,504*	*$ 154,504*	*$ 154,504*	*$ 154,504*	*$ 154,504*	*$ 154,504*	*$ 154,504*

1. Funds advanced for the Recycled Water Expansion Project. Repayment scheduled to begin FY 2023/24.
2. Funds advanced for Green Island Recycled Waterline Project. Repayment scheduled to begin FY 2025/26.
3. Funds advanced for the Green Island Road Recycled Waterline Project. Repayment scheduled to begin FY 2025/26.
4. Funds advanced for the Recycled Water Pump Station Upgrade. Repayment scheduled to begin FY 2025/26.
5. Funds advance for various CIP projects. Repayment scheduled to begin FY 2025/26.

TABLE 11 : EXISTING ANNUAL DEBT OBLIGATIONS TO BE SATISFIED BY WATER RATES

Annual Obligations	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Existing Interfund Loan Repayment	*$ -*	*$ -*	*$ 198,566*	*$ 198,566*	*$ 267,497*	*$ 267,497*	*$ 267,497*	*$ 267,497*	*$ 267,497*	*$ 267,497*	*$ 267,497*	*$ 267,497*

TABLE 12 : CURRENT RECYCLED WATER RATE SCHEDULE

Recycled Water Rate Schedule[1]	Current Rates Jan. 1, 2023
Monthly Fixed Service Charges	
Recycled Water[2]	
< 1" meter	$26.56
1" meter	$44.42
1 1/2" meter	$88.75
2" meter	$141.99
3" meter	$283.98
4" meter	$443.74
6" meter	$887.48
8" meter	$1,420.06
Variable Rates for All Water Consumed (in $/hcf) [3]	
Recycled Water	$0.90

1. Rates available on the City website. Source: *https://www.cityofamericancanyon.org* .
2. Green Island Vineyard is charged different rates based on contract terms.
3. HCF = hundred cubic feet (748 gallons).

TABLE 13 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Classification of Expenses							
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2023/24	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
Fund 580 - Recycled Water Operations							
Wages - Full time	$ 209,085	$ 104,543	$ 83,634	$ 20,909	50.0%	40.0%	10.0%
Health Insurance	35,576	17,788	14,230	3,558	50.0%	40.0%	10.0%
Health-In Lieu	2,280	1,140	912	228	50.0%	40.0%	10.0%
Cafeteria Plan Section 125	9,599	4,799	3,839	960	50.0%	40.0%	10.0%
PERS Retirement	26,843	13,421	10,737	2,684	50.0%	40.0%	10.0%
Benefits - Other	471	236	188	47	50.0%	40.0%	10.0%
Social Security & Medicare	3,204	1,602	1,282	320	50.0%	40.0%	10.0%
Worker Comp Insurance	22,467	11,234	8,987	2,247	50.0%	40.0%	10.0%
Info Tech Support Services	54,000	27,000	21,600	5,400	50.0%	40.0%	10.0%
Professional Services	51,000	25,500	20,400	5,100	50.0%	40.0%	10.0%
Misc Contractual Services	2,000	1,000	800	200	50.0%	40.0%	10.0%
General Repairs & Maint	20,000	10,000	8,000	2,000	50.0%	40.0%	10.0%
Postage/Mail/Copy/Printing Svc	5,000	2,500	2,000	500	50.0%	40.0%	10.0%
Membership Dues & Subscription	1,000	500	400	100	50.0%	40.0%	10.0%
Conferences - Training	2,000	1,000	800	200	50.0%	40.0%	10.0%
Office Supplies	500	250	200	50	50.0%	40.0%	10.0%
Operating Supplies	123,000	61,500	49,200	12,300	50.0%	40.0%	10.0%
Major Equipment	70,000	35,000	28,000	7,000	50.0%	40.0%	10.0%
Transfers Out To Other Funds	50,000	25,000	20,000	5,000	50.0%	40.0%	10.0%
Retiree Health Benefits	1,973	987	789	197	50.0%	40.0%	10.0%
OPEB	1,251	625	500	125	50.0%	40.0%	10.0%
ISF - Bldg Maint	39,873	19,937	15,949	3,987	50.0%	40.0%	10.0%
ISF - Legal Services	23,705	11,853	9,482	2,371	50.0%	40.0%	10.0%
Transfer to Gen Fnd Support Sv	138,336	69,168	55,334	13,834	50.0%	40.0%	10.0%
Total: Recycled Water Operations Expenses	**$ 893,163**	**$ 446,581**	**$ 357,265**	**$ 89,316**	**50.0%**	**40.0%**	**10.0%**
Total: Recycled Water Operations Expenses	**$ 893,163**	**$ 446,581**	**$ 357,265**	**$ 89,316**	**50.0%**	**40.0%**	**10.0%**
Total: Operations Expenses - Delivered[1]	**$ 732,393**	**$ 366,197**	**$ 292,957**	**$ 73,239**	**50.0%**	**40.0%**	**10.0%**
Total: Operations Expenses - Self-Haul[1]	**$ 160,769**	**$ 80,385**	**$ 64,308**	**$ 16,077**	**50.0%**	**40.0%**	**10.0%**

Current Allocation
82%
18%

1. Delivered and self-haul recycled water rates based on direction provided by City staff; that is, 82 % of O&M costs attributed to delivered water and 18% to self-haul.

TABLE 14 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS, cont.

Classification of Expenses, continued								
Budget Categories	Total Revenue Requirements FY 2023/24	Commodity (COM)	Capacity (CAP)	Customer (CA)	Basis of Classification (COM)	(CAP)	(CA)	
Debt Service Payments								
Outstanding Debt	$ -	$ -	$ -	$ -	0.0%	100.0%	0.0%	
Interfund Loan Repayment	198,566	-	198,566	-	0.0%	100.0%	0.0%	
Total Debt Service Payments	**$ 198,566**	**$ -**	**$ 198,566**	**$ -**	**0.0%**	**100.0%**	**0.0%**	*Current Allocation*
Total Debt Service Payments - Delivered	**$ 99,283**	**$ -**	**$ 99,283**	**$ -**	**0.0%**	**100.0%**	**0.0%**	*50%*
Total Debt Service Payments - Self-Haul	**$ 99,283**	**$ -**	**$ 99,283**	**$ -**	**0.0%**	**100.0%**	**0.0%**	*50%*
Capital Expenditures								
Rate Funded Capital Expenses	$ -	$ -	$ -	$ -	0.0%	100.0%	0.0%	*Current Allocation*
Total Capital Expenditures - Delivered	**$ -**	**$ -**	**$ -**	**$ -**	**0.0%**	**100.0%**	**0.0%**	*50%*
Total Capital Expenditures - Self-Haul	**$ -**	**$ -**	**$ -**	**$ -**	**0.0%**	**100.0%**	**0.0%**	*50%*
TOTAL REVENUE REQUIREMENTS	**$ 1,091,728**	**$ 446,581**	**$ 555,831**	**$ 89,316**	**40.9%**	**50.9%**	**8.2%**	
TOTAL REVENUE REQUIREMENTS - Delivered	**$ 831,676**	**$ 366,197**	**$ 392,240**	**$ 73,239**	**44.0%**	**47.2%**	**8.8%**	
TOTAL REVENUE REQUIREMENTS - Self-Haul	**$ 260,052**	**$ 80,385**	**$ 163,591**	**$ 16,077**	**30.9%**	**62.9%**	**6.2%**	
Less: Non-Rate Revenues								
Other Revenue								
Interest Earnings	(22,343)	(9,139)	(11,375)	(1,828)	40.9%	50.9%	8.2%	
NET REVENUE REQUIREMENTS	**$ 1,069,386**	**$ 437,442**	**$ 544,455**	**$ 87,488**				
Allocation of Revenue Requirements	**100.0%**	**40.9%**	**50.9%**	**8.2%**				*Current Allocation*
NET REVENUE REQUIREMENTS - Delivered	**$ 813,355**	**$ 358,702**	**$ 382,912**	**$ 71,740**	**44.1%**	**47.1%**	**8.8%**	*82%*
NET REVENUE REQUIREMENTS - Self-Haul	**$ 256,030**	**$ 78,740**	**$ 161,543**	**$ 15,748**	**9.7%**	**19.9%**	**1.9%**	*18%*

TABLE 15 : ADJUSTMENT TO CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Classification of Expenses, continued Adjustments to Classification of Expenses				
Adjustment for Current Rate Level:	Total	(COM)	(CAP)	(CA)
Test Year (FY 2023/24) Target Rate Rev. After Rate Increas	$ 1,069,386			
Projected Rate Revenue at Current Rates	$ 207,000			
Test Year (FY 2023/24) Projected Rate Adjustment	417%			
Adjusted Net Revenue Req'ts	**$ 1,069,386**	**$ 437,442**	**$ 544,455**	**$ 87,488**
Percent of Revenue	*100.0%*	*40.9%*	*50.9%*	*8.2%*

TABLE 16 : NET REVENUE REQUIREMENTS PER COSA RESULTS

Net Revenue Requirements - Per COSA Results *59% Fixed / 41% Variable*	Total Rate Revenue Requirements FY 2023/24	Commodity Related Costs	Capacity Related Costs	Customer Related Costs
Rate-Design Adjustments to Fixed/Variable %	**100.0%**	**40.9%**	**50.9%**	**8.2%**
Rate-Design Adjustments to Fixed/Variable ($)	**$1,069,386**	**$437,442**	**$544,455**	**$87,488**

TABLE 17 : REVISED NET REVENUE REQUIREMENTS PER COSA RESULTS

Rate-Design Adjustments to Fixed/Variable %	100.0%	40.9%	50.9%	8.2%
Rate-Design Adjustments to Fixed/Variable ($)	$1,069,386	$437,442	$544,455	$87,488

TABLE 18 : REVISED NET REVENUE REQUIREMENTS - (40% FIXED/60% VOLUMETRIC) - ALTERNATIVE 2

Rate-Design Adjustments to Fixed/Variable %	100.0%	60.0%	34.5%	5.5%
Rate-Design Adjustments to Fixed/Variable ($)	$1,069,386	$641,631	$368,535	$59,220

TABLE 19 : REVISED NET REVENUE REQUIREMENTS - (20% FIXED/80% VOLUMETRIC) - ALTERNATIVE 3

Rate-Design Adjustments to Fixed/Variable %	100.0%	80.0%	17.2%	2.8%
Rate-Design Adjustments to Fixed/Variable ($)	$1,069,386	$855,509	$184,267	$29,610

TABLE 20 : ALLOCATION OF RECYCLED WATER REVENUE REQUIREMENTS

PROPOSED ALTERNATIVE		
Recycled Water Classification Components	**Cost-of-Service Net Revenue Requirements** *(2023/24)* [1]	
Variable (Collected from Vol. Rates)	$ 855,509	***80%***
Fixed (Collected from Fixed Charges)	213,877	20%
Net Revenue Requirement	**$ 1,069,386**	*100%*

1. For calculation, see the *RW - Funct. & Classification* tab.

TABLE 21 : ALLOCATION OF NET REVENUE REQUIREMENTS - FY 2023/24

PROPOSED ALTERNATIVE									
Recycled Water Customers	**Cost Allocation Factors**			**Cost Classifications**			**RW Volumetric Rate** ($/hcf)[5]	**RW Fixed Charges** *($/Eq. Meter/ Month)* [6]
	Annual RW Consumption[1]	**Equivalent Meters**[2]		**Variable Costs**[3]	**Fixed Costs**[4]	**Net Revenue Req'ts**		
		No. of Equiv. Meters	**% of Equiv. Meters**					
Recycled Water								
Recycled Water	272,268	458	100.0%	$ 855,509	$ 213,877	$ 1,069,386	$3.14	$38.89
Total Net Revenue Requirement	**272,268**	**458**	**100.0%**	**$ 855,509**	**$ 213,877**	**$ 1,069,386**	--	--

1. Source file: *2020 Urban Water Management Plan* , Figure 6.4.
2. Number of meters by size times the hydraulic capacity factor for each meter size. Source: AWWA, Manual M1, Table B-1 & AWWA, Manual M6, Table 5-3.
3. Total Variable Costs times the proportional share of annual RW consumption.
4. Fixed costs times the percent of equivalent meters.
5. Total Variable Costs divided by Total Annual RW Consumption.
6. Total Fixed Costs divided by total Equivalent Meters. This provides the basis for monthly fixed charges for each meter size.

TABLE 22 : CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY 2023/24

PROPOSED ALTERNATIVE									
Number of RW Meters by Class and Size[1]	**FY 2023/24**								**Total**
	< 1" meter	**1" meter**	**1 1/2" meter**	**2" meter**	**3" meter**	**4" meter**	**6" meter**	**8" meter**	
Recycled Water									
Recycled Water	2	13	14	28	13	6	0	0	76
Total Meters/Accounts	**2**	**13**	**14**	**28**	**13**	**6**	**0**	**0**	**76**
Hydraulic Capacity Factor [2]	*1.00*	*1.67*	*3.33*	*5.33*	*10.67*	*16.67*	*33.33*	*53.33*	
Total Equivalent Meters	**2**	**22**	**47**	**149**	**139**	**100**	**0**	**0**	**458**
Monthly Fixed Service Charges									
Fixed Charge ($/EM/month)[3]	$38.89	$38.89	$38.89	$38.89	$38.89	$38.89	$38.89	$38.89	
Fixed Monthly Charge	**$38.89**	**$64.81**	**$129.62**	**$207.40**	**$414.79**	**$648.11**	**$1,296.23**	**$2,073.96**	
Annual Fixed Costs Allocated to Monthly Meter Charges									
Total Revenue from RW Meter Charges	**$ 933**	**$ 10,111**	**$ 21,777**	**$ 69,685**	**$ 64,708**	**$ 46,664**	**$ -**	**$ -**	**$ 213,877**

1. Meter by Class and Size are based on June 2022 customer billing data.
2. Source: *Principles of Water Rates, Fees, and Charges* , Manual M1, AWWA, Table B-1.
3. Cost per month per equivalent meter. Monthly fixed charges are set for each meter size using the hydraulic capacity factors and total equivalent meters.

TABLE 23 : METER EQUIVALENCY FACTORS USED IN FIXED CHARGES CALCULATION

Meter Size	Standard Meters	
	Meter Capacity	Equivalency to 3/4 inch
	Displacement Meters	
5/8 inch	20	1.00
3/4 inch	30	1.00
1 inch	50	1.67
1.5 inch	100	3.33
2 inch	160	5.33
	Compound Class I Meters	
3 inch	320	10.67
4 inch	500	16.67
6 inch	1,000	33.33
8 inch	1,600	53.33
	Turbine Class II Meters	
10 inch	4,200	140.00
12 inch	5,300	176.67

1. Per AWWA, M1 Manual, Table B-1.

TABLE 24 : ALLOCATION OF RECYCLED WATER REVENUE REQUIREMENTS

Recycled Water Classification Components	Total[1]	Net Revenue Requirements - Delivered *(2023/24)*		Net Revenue Requirements - Self-Haul*(2023/24)*	
Variable (Collected from Vol. Rates)	$ 437,442	$ 650,684	*80%*	$ 256,030	*100%*
Fixed (Collected from Fixed Charges)	631,944	162,671	20%	-	0%
Net Revenue Requirement	**$ 1,069,386**	**$ 813,355**	*100%*	**$ 256,030**	*100%*

1. For calculation, see the *RW - Funct. & Classification* tab.

TABLE 25 : ALLOCATION OF NET REVENUE REQUIREMENTS - FY 2023/24

Recycled Water Customers	Cost Allocation Factors			Cost Classifications			RW Volumetric Rate ($/hcf)[5]	RW Fixed Charges *($/Eq. Meter/ Month)*[6]
	Annual RW Consumption[1]	Equivalent Meters[2] No. of Equiv. Meters	Equivalent Meters[2] % of Equiv. Meters	Variable Costs[3]	Fixed Costs[4]	Net Revenue Req'ts		
Recycled Water								
Delivered	136,134	458	100.0%	$ 650,684	$ 162,671	$ 813,355	$4.78	*$29.58*
Self-Haul	136,134	0	0.0%	256,030	-	256,030	$1.88	*n/a*
Total Net Revenue Requirement	**272,268**	**458**	**0.0%**	**$ 256,030**	**$ -**	**$ 256,030**	--	--

1. Source file: *2020 Urban Water Management Plan* , Figure 6.4.
2. Number of meters by size times the hydraulic capacity factor for each meter size. Source: AWWA, Manual M1, Table B-1 & AWWA, Manual M6, Table 5-3.
3. Total Variable Costs times the proportional share of annual RW consumption.
4. Fixed costs times the percent of equivalent meters.
5. Total Variable Costs divided by Total Annual RW Consumption.
6. Total Fixed Costs divided by total Equivalent Meters. This provides the basis for monthly fixed charges for each meter size.

TABLE 26 : CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY 2023/24

Number of RW Meters by Class and Size[1]	FY 2023/24								Total
	< 1" meter	1" meter	1 1/2" meter	2" meter	3" meter	4" meter	6" meter	8" meter	
Recycled Water									
Delivered	2	13	14	28	13	6	0	0	76
Total Meters/Accounts	**2**	**13**	**14**	**28**	**13**	**6**	**0**	**0**	**76**
Hydraulic Capacity Factor[2]	*1.00*	*1.67*	*3.33*	*5.33*	*10.67*	*16.67*	*33.33*	*53.33*	
Total Equivalent Meters	**2**	**22**	**47**	**149**	**139**	**100**	**0**	**0**	**458**
Monthly Fixed Service Charges									
Fixed Charge ($/EM/month)[3]	$29.58	$29.58	$29.58	$29.58	$29.58	$29.58	$29.58	$29.58	
Fixed Monthly Charge	**$29.58**	**$49.29**	**$98.59**	**$157.74**	**$315.48**	**$492.94**	**$985.89**	**$1,577.42**	
Annual Fixed Costs Allocated to Monthly Meter Charges									
Total Revenue from RW Meter Charges	**$ 710**	**$ 7,690**	**$ 16,563**	**$ 53,001**	**$ 49,215**	**$ 35,492**	**$ -**	**$ -**	**$ 162,671**

1. Meter by Class and Size are based on June 2022 customer billing data.
2. Source: *Principles of Water Rates, Fees, and Charges* , Manual M1, AWWA, Table B-1.
3. Cost per month per equivalent meter. Monthly fixed charges are set for each meter size using the hydraulic capacity factors and total equivalent meters.

TABLE 27 : METER EQUIVALENCY FACTORS USED IN FIXED CHARGES CALCULATION

Meter Size	Standard Meters	
	Meter Capacity	Equivalency to 3/4 inch
	Displacement Meters	
5/8 inch	20	1.00
3/4 inch	30	1.00
1 inch	50	1.67
1.5 inch	100	3.33
2 inch	160	5.33
	Compound Class I Meters	
3 inch	320	10.67
4 inch	500	16.67
6 inch	1,000	33.33
8 inch	1,600	53.33
	Turbine Class II Meters	
10 inch	4,200	140.00
12 inch	5,300	176.67

1. Per AWWA, M1 Manual, Table B-1.

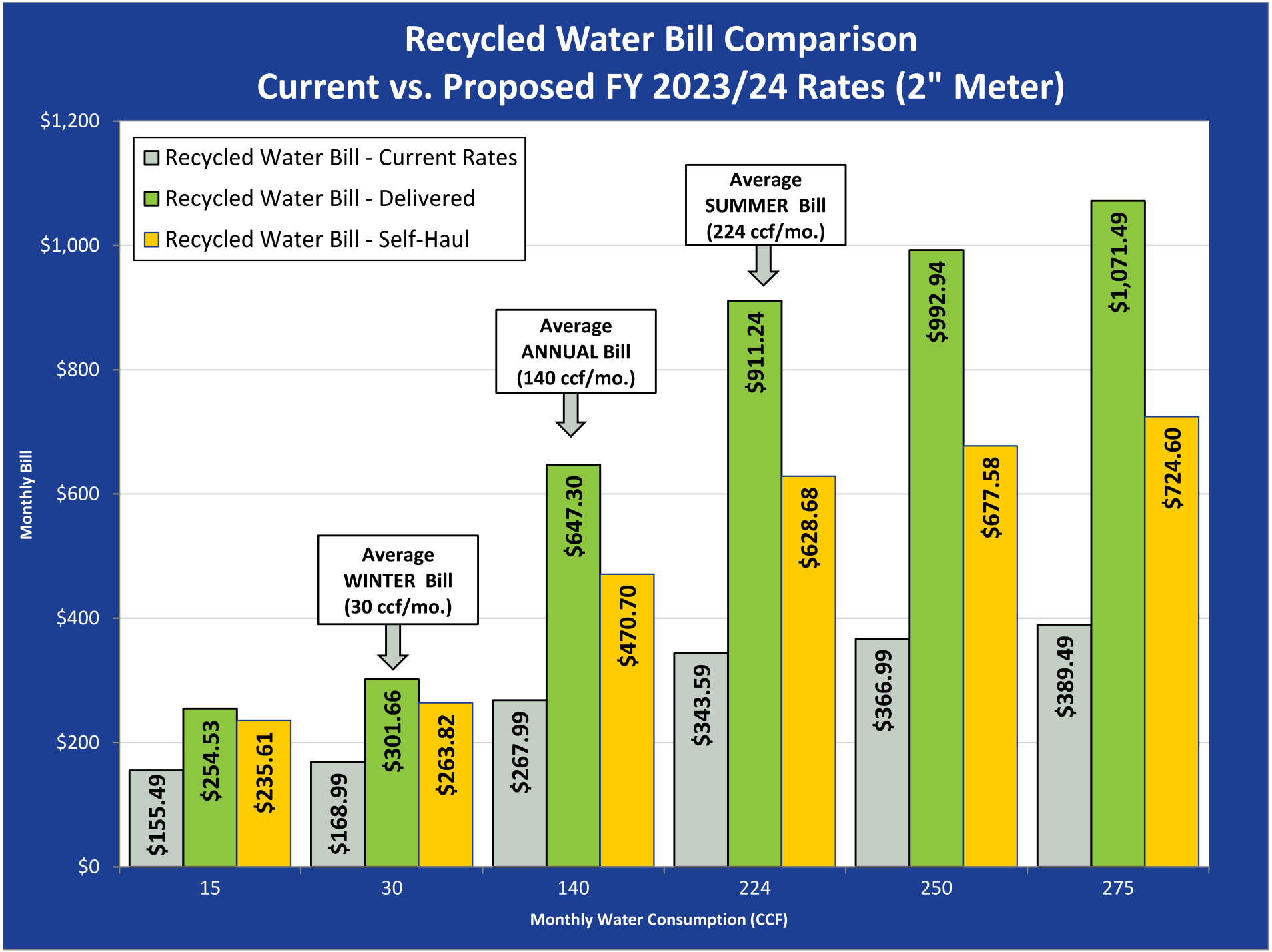
TABLE 28 : CURRENT VS. PROPOSED RATES

Recycled Water Rate Schedule	Current Rates	PROPOSED ALTERNATIVE				
		Proposed Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Projected Increase in Rate Revenue per Financial Plan:		*250.00%*	*10.00%*	*10.00%*	*5.00%*	*5.00%*
Monthly Fixed Service Charges (in $/mo) - Delivered Only						
< 1" meter	$26.56	$29.58	$32.53	$35.79	$37.58	$39.46
1" meter	$44.42	$49.29	$54.22	$59.65	$62.63	$65.76
1 1/2" meter	$88.75	$98.59	$108.45	$119.29	$125.26	$131.52
2" meter	$141.99	$157.74	$173.52	$190.87	$200.41	$210.43
3" meter	$283.98	$315.48	$347.03	$381.73	$400.82	$420.86
4" meter	$443.74	$492.94	$542.24	$596.46	$626.28	$657.60
6" meter	$887.48	$985.89	$1,084.47	$1,192.92	$1,252.57	$1,315.20
8" meter	$1,420.06	$1,577.42	$1,735.16	$1,908.67	$2,004.11	$2,104.31
Commodity Charges for All Water Consumed (in $/hcf)						
Variable Charge - Delivered	$0.90	$4.78	$5.26	$5.78	$6.07	$6.38
Variable Charge - Self-Haul	*n/a*	$1.88	$2.07	$2.28	$2.39	$2.51

TABLE 29 : CURRENT VS. PROPOSED RATES

Recycled Water Rate Schedule	Current Rates	PROPOSED ALTERNATIVE				
		Proposed Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Projected Increase in Rate Revenue per Financial Plan:		*250.00%*	*10.00%*	*10.00%*	*5.00%*	*5.00%*
Monthly Fixed Service Charges (in $/mo)						
< 1" meter	$26.56	$38.89	$42.78	$47.05	$49.41	$51.88
1" meter	$44.42	$64.81	$71.29	$78.42	$82.34	$86.46
1 1/2" meter	$88.75	$129.62	$142.58	$156.84	$164.69	$172.92
2" meter	$141.99	$207.40	$228.14	$250.95	$263.50	$276.67
3" meter	$283.98	$414.79	$456.27	$501.90	$526.99	$553.34
4" meter	$443.74	$648.11	$712.92	$784.22	$823.43	$864.60
6" meter	$887.48	$1,296.23	$1,425.85	$1,568.43	$1,646.85	$1,729.20
8" meter	$1,420.06	$2,073.96	$2,281.36	$2,509.49	$2,634.97	$2,766.71
Commodity Charges for All Water Consumed (in $/hcf)						
Variable Charge	$0.90	$3.14	$3.46	$3.80	$3.99	$4.19
Variable Charge - Self-Haul	*n/a*	$1.88	$2.07	$2.28	$2.39	$2.51

Recycled Water Bill Comparison
Current vs. Proposed FY 2023/24 Rates (2" Meter)



Appendix C. Sewer Rate Study Tables and Figures

TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Sources of Funds [1]												
Rate Revenue:												
Sewer Rate Revenue	$ 4,824,937	$ 4,940,178	$ 5,042,690	$ 5,128,416	$ 5,215,599	$ 5,304,264	$ 5,394,436	$ 5,486,142	$ 5,573,920	$ 5,663,103	$ 5,753,713	$ 5,845,772
Other Revenue	82,867	171,545	98,593	100,269	101,974	103,707	105,470	107,263	108,979	110,723	112,495	114,295
Interest Earnings	28,277	166,693	120,000	22,911	22,211	24,657	21,576	24,547	25,380	26,255	27,142	28,071
Total: Sources of Funds	**$ 4,936,080**	**$ 5,278,416**	**$ 5,261,283**	**$ 5,251,596**	**$ 5,339,784**	**$ 5,432,629**	**$ 5,521,483**	**$ 5,617,952**	**$ 5,708,280**	**$ 5,800,081**	**$ 5,893,350**	**$ 5,988,138**
Uses of Water Funds												
Operating Expenses:												
570 - Wastewater Treatment Plant	$ 3,075,847	$ (1,723,127)	$ 1,952,137	$ 2,041,362	$ 2,121,194	$ 4,663,008	$ 2,291,046	$ 2,381,374	$ 2,475,521	$ 2,573,662	$ 2,675,976	$ 2,782,656
575 - Wastewater Collections	509,518	1,181,331	835,861	873,335	902,822	933,308	964,830	997,421	1,031,118	1,065,960	1,101,985	1,139,234
585 - Wastewater Environmental Compliance	414,090	489,734	856,655	887,901	915,994	944,981	974,890	1,005,750	1,037,594	1,070,451	1,104,354	1,139,337
810 - Non Departmental	1,820,335	2,157,776	2,615,743	2,700,825	2,783,879	2,869,503	2,957,779	3,048,788	3,142,618	3,239,356	3,339,093	3,441,923
Subtotal: Operating Expenses	$ 5,819,790	$ 2,105,714	$ 6,260,396	$ 6,503,425	$ 6,723,889	$ 9,410,800	$ 7,188,544	$ 7,433,334	$ 7,686,851	$ 7,949,428	$ 8,221,408	$ 8,503,149
Other Expenditures:												
Existing Debt Service	$ 1,115,315	$ 206,640	$ 215,074	$ 223,856	$ 224,168	$ 239,297	$ 249,385	$ 222,191	$ 231,597	$ 241,391	$ 249,843	$ 259,060
Future Debt Service	-	-	-	-	-	-	-	-	-	-	-	-
Rate-Funded Capital Expenses	345,549	3,201,161	2,573,447	197,942	1,111,368	14,992	2,230,867	1,406,839	332,901	-	-	-
Subtotal: Other Expenditures	$ 1,460,864	$ 3,407,800	$ 2,788,521	$ 421,799	$ 1,335,536	$ 254,288	$ 2,480,251	$ 1,629,030	$ 564,498	$ 241,391	$ 249,843	$ 259,060
Total: Uses of Funds	**$ 7,280,654**	**$ 5,513,515**	**$ 9,048,917**	**$ 6,925,223**	**$ 8,059,425**	**$ 9,665,088**	**$ 9,668,795**	**$ 9,062,364**	**$ 8,251,349**	**$ 8,190,819**	**$ 8,471,251**	**$ 8,762,209**
Plus: Revenue from Rate Increases [2]	-	-	630,336	1,923,156	3,077,203	4,141,569	4,755,735	4,836,583	4,913,968	4,992,591	5,072,473	5,153,633
Annual Surplus/(Deficit)	**$ (2,344,574)**	**$ (235,099)**	**$ (3,157,298)**	**$ 249,528**	**$ 357,562**	**$ (90,890)**	**$ 608,423**	**$ 1,392,171**	**$ 2,370,899**	**$ 2,601,853**	**$ 2,494,572**	**$ 2,379,561**
Net Revenue Reqt. *(Total Uses less Non-Rate Revenue)*	**$ 7,169,511**	**$ 5,175,276**	**$ 8,830,324**	**$ 6,802,043**	**$ 7,935,240**	**$ 9,536,723**	**$ 9,541,748**	**$ 8,930,554**	**$ 8,116,989**	**$ 8,053,841**	**$ 8,331,613**	**$ 8,619,843**
Total Rate Revenue After Rate Increases	**$ 4,824,937**	**$ 4,940,178**	**$ 6,303,363**	**$ 7,692,624**	**$ 8,762,206**	**$ 9,980,503**	**$ 10,150,172**	**$ 10,322,725**	**$ 10,487,888**	**$ 10,655,694**	**$ 10,826,185**	**$ 10,999,404**
Projected Annual Rate Revenue Increase	***0.00%***	***0.00%***	***25.00%***	***20.00%***	***12.00%***	***12.00%***	***0.00%***	***0.00%***	***0.00%***	***0.00%***	***0.00%***	***0.00%***
Cumulative Increase from Annual Revenue Increases	*0.00%*	*0.00%*	*25.00%*	*50.00%*	*68.00%*	*88.16%*	*88.16%*	*88.16%*	*88.16%*	*88.16%*	*88.16%*	*88.16%*
Debt Coverage After Rate Increase	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

1. Revenue and expenses for FY 2021/22 through FY 2023/24 provided by the City. Source files: *Fund 540 Wastewater Operations* & *Fund 510 - 580 FY 23-24 Budget Status as of 09-19-2023* .
2. Revenue from rate increases assumes an implementation date of January 1, 2024. For each year thereafter, the assumption is that new rates will be implemented on January 1st of each year.

Selection of Financial Plan Alternative		1										
Financial Plan Alternatives		**FY 2021/22**	**FY 2022/23**	**FY 2023/24**	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**	**FY 2028/29**	**FY 2029/30**	**FY 2030/31**	**FY 2031/32**	**FY 2032/33**
1	Alternative 1 - Full Cost Recovery Rates [1]	*0.00%*	*0.00%*	*25.00%*	*20.00%*	*12.00%*	*12.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
2	Alternative 2 - Phased-in Rate Increases [2]	*0.00%*	*0.00%*	*15.00%*	*15.00%*	*15.00%*	*15.00%*	*10.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
3	Alternative 3 - Minimal Rate Increases [3]	*0.00%*	*0.00%*	*5.00%*	*5.00%*	*5.00%*	*5.00%*	*5.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
4	No Rate Increases	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*

1. Alternative 1: Scenario 1 - Rates needed to meet all revenue requirements and meet the target reserve levels (Large increase followed by smaller increases).
2. Alternative 2: Scenario 2 - Large increases phased In over two years, followed by smaller increases (Reserves drop below target level).
3. Alternative 3: Scenario 3 - Smaller increases (Reserves drop below target level).

TABLE 2 : RESERVE FUND SUMMARY

SUMMARY OF CASH ACTIVITY SEWER FUND RESERVES	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	 FY 2024/25	 FY 2025/26	 FY 2026/27	 FY 2027/28	Projected FY 2028/29	 FY 2029/30	 FY 2030/31	 FY 2031/32	 FY 2032/33
Total Beginning Cash[1]	**$ 8,702,214**											
Unrestricted Reserves:												
Operating Reserve												
Beginning Reserve Balance	$ 8,314,998	$ 7,733,712	$ 5,200,513	$ 1,677,226	$ 1,626,000	$ 1,805,087	$ 1,579,529	$ 1,797,000	$ 1,858,000	$ 1,922,000	$ 1,987,000	$ 2,055,000
Plus: Net Cash Flow (After Rate Increases)	(2,344,574)	(235,099)	(3,157,298)	249,528	357,562	(90,890)	608,423	1,392,171	2,370,899	2,601,853	2,494,572	2,379,561
Plus: Transfer of Debt Reserve Surplus	-	-	-	-	-	-	-	-	-	-	-	-
Plus: Interest Earnings	113,583	193,343	130,013	22,911	22,211	24,657	21,576	24,547	25,380	26,255	27,142	28,071
Less: Transfer out to Capacity Fee Reserve (Interfund Loan)	-	(159,325)	(159,325)	(159,325)	(159,325)	(159,325)	(159,325)	(159,325)	(159,325)	(159,325)	(159,325)	-
Less: Transfer Out to Capital Replacement Reserve	(4,629,007)	(4,904,642)	(336,678)	(164,341)	(41,362)	-	(253,205)	(1,196,393)	(2,172,955)	(2,403,783)	(2,294,390)	(2,336,632)
Ending Operating Reserve Balance	***$ 1,455,000***	***$ 2,627,989***	***$ 1,677,226***	***$ 1,626,000***	***$ 1,805,087***	***$ 1,579,529***	***$ 1,797,000***	***$ 1,858,000***	***$ 1,922,000***	***$ 1,987,000***	***$ 2,055,000***	***$ 2,126,000***
Target Ending Balance (90 days of O&M)[2]	*$ 1,455,000*	*$ 526,000*	*$ 1,565,000*	*$ 1,626,000*	*$ 1,681,000*	*$ 2,353,000*	*$ 1,797,000*	*$ 1,858,000*	*$ 1,922,000*	*$ 1,987,000*	*$ 2,055,000*	*$ 2,126,000*
Capital Rehabilitation & Replacement Reserve												
Beginning Reserve Balance	$ 387,216	$ 145,027	$ 546,284	$ 882,962	$ 1,047,302	$ 1,088,664	$ 1,088,664	$ 1,341,869	$ 2,527,393	$ 3,580,955	$ 4,447,200	$ 5,116,353
Plus: Grant Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Plus: Transfer of Operating Reserve Surplus	4,629,007	4,904,642	336,678	164,341	41,362	-	253,205	1,196,393	2,172,955	2,403,783	2,294,390	2,336,632
Less: Use of Reserves for Capital Projects	-	-	-	-	-	-	-	(10,869)	(1,119,393)	(1,537,538)	(1,625,237)	(1,715,751)
Ending Capital Rehab & Replacement Reserve Balance	***$ 5,016,223***	***$ 5,049,669***	***$ 882,962***	***$ 1,047,302***	***$ 1,088,664***	***$ 1,088,664***	***$ 1,341,869***	***$ 2,527,393***	***$ 3,580,955***	***$ 4,447,200***	***$ 5,116,353***	***$ 5,737,234***
Target Ending Balance (3% of Assets)[3]	*$ 759,000*	*$ 852,000*	*$ 936,000*	*$ 968,000*	*$ 1,060,000*	*$ 1,156,000*	*$ 1,255,000*	*$ 1,331,000*	*$ 1,408,000*	*$ 1,487,000*	*$ 1,569,000*	*$ 1,655,000*
Ending Cash Balance - Excl. Restricted Reserves	***$ 6,471,223***	***$ 7,677,658***	***$ 2,560,188***	***$ 2,673,302***	***$ 2,893,751***	***$ 2,668,194***	***$ 3,138,869***	***$ 4,385,393***	***$ 5,502,955***	***$ 6,434,200***	***$ 7,171,353***	***$ 7,863,234***
Min. Target Ending Cash Balance -Excl. Restricted Reserves	***$ 2,214,000***	***$ 1,378,000***	***$ 2,501,000***	***$ 2,594,000***	***$ 2,741,000***	***$ 3,509,000***	***$ 3,052,000***	***$ 3,189,000***	***$ 3,330,000***	***$ 3,474,000***	***$ 3,624,000***	***$ 3,781,000***
Ending Surplus/(Deficit) Compared to Reserve Targets	***$ 4,257,223***	***$ 6,299,658***	***$ 59,188***	***$ 79,302***	***$ 152,751***	***$ (840,806)***	***$ 86,869***	***$ 1,196,393***	***$ 2,172,955***	***$ 2,960,200***	***$ 3,547,353***	***$ 4,082,234***
Days Cash on Hand	***384***	***529***	***106***	***146***	***135***	***104***	***122***	***182***	***251***	***296***	***319***	***338***
Annual Interest Earnings Rate[4]	*1.37%*	*2.50%*	*2.50%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*	*1.37%*

1. Beginning cash balance for FY 2021/22 and FY 2022/23 provided by City staff. Source file: *Cash Balances - Enterprise Funds.xlsx* .
2. The Operating Reserve target is set equal to 3 months, or 90 days, of operating expenditures.
3. The Capital Rehabilitation & Replacement Reserve target is set to 3% of net assets. Source files: *8 - City of American Canyon Annual Report FYE 2021.pdf* , page 51.
4. Historical interest earning rates are per the average annual yields for funds invested in LAIF (2017-2021). The source is the California State Treasurer's website: *https://www.treasurer.ca.gov/pmia-laif/historical/annual.asp* .

CHART 1

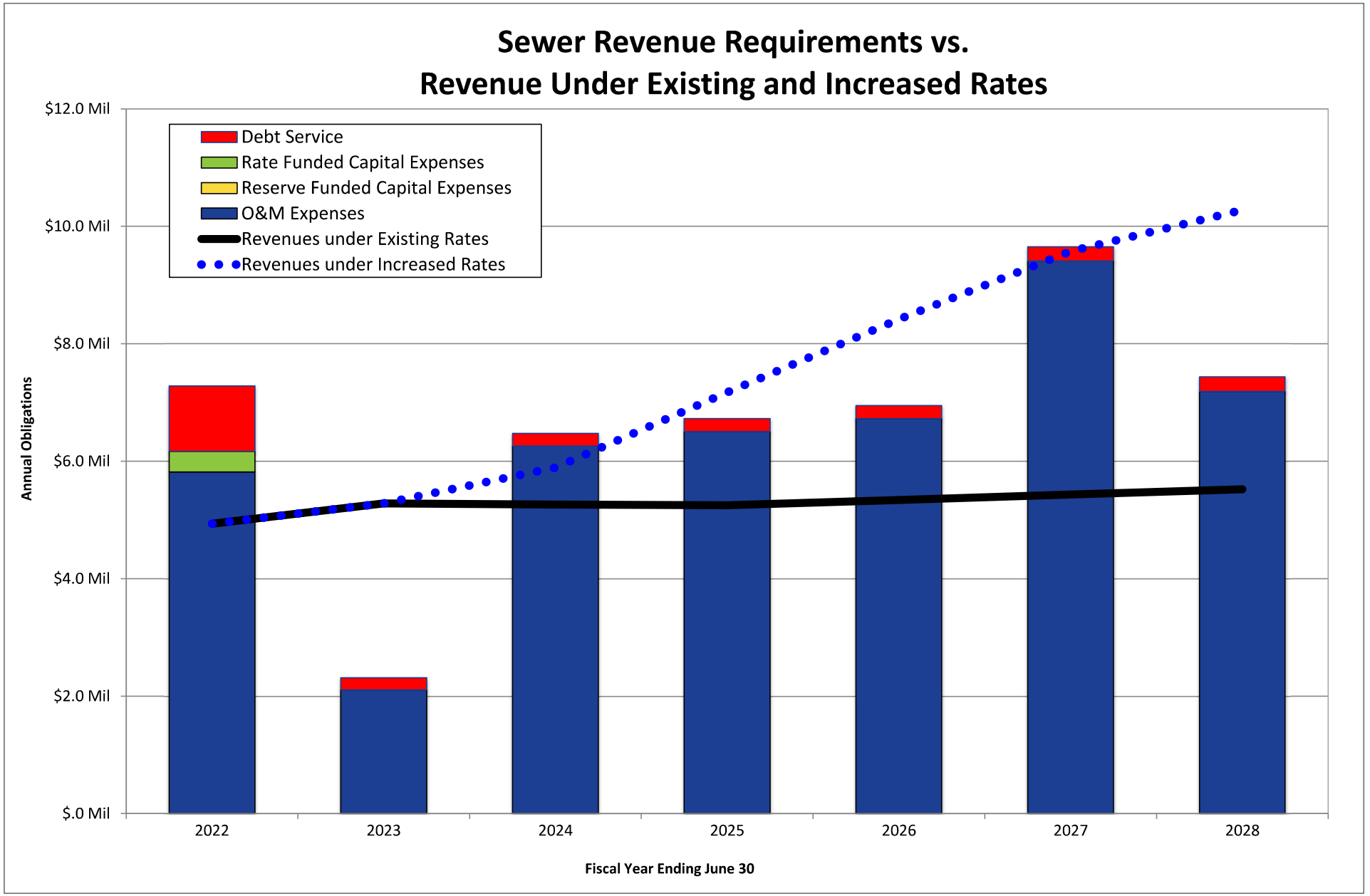

Sewer Revenue Requirements vs.
Revenue Under Existing and Increased Rates
Debt Service
Rate Funded Capital Expenses
Reserve Funded Capital Expenses
O&M Expenses
Revenues under Existing Rates
Revenues under Increased Rates
$12.0 Mil
$10.0 Mil
$8.0 Mil
$6.0 Mil
$4.0 Mil
$2.0 Mil
$.0 Mil
Annual Obligations
2022
2023
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

CHART 2

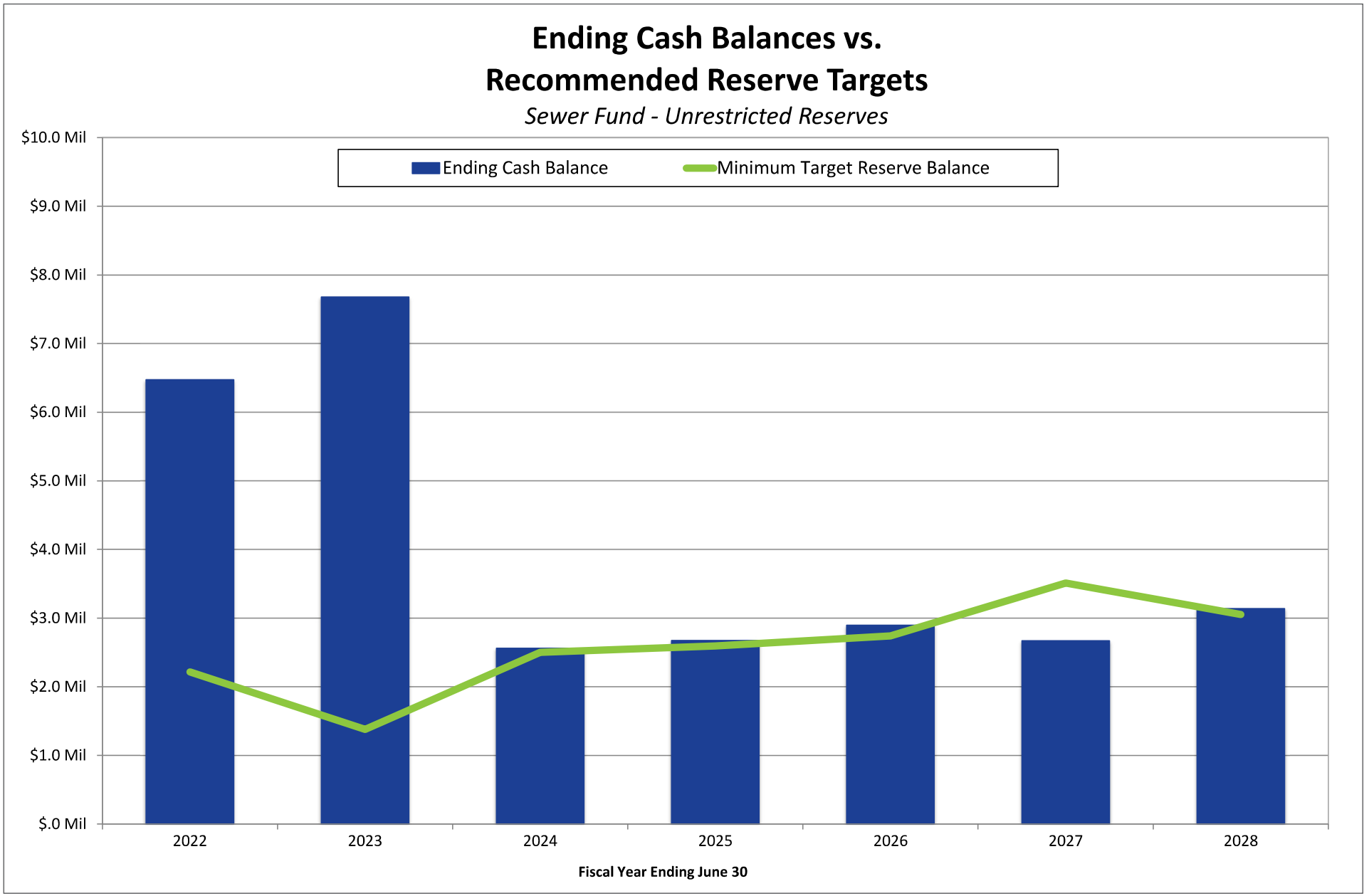

Ending Cash Balances vs.
Recommended Reserve Targets
Sewer Fund - Unrestricted Reserves
$10.0 Mil
$9.0 Mil
$8.0 Mil
$7.0 Mil
$6.0 Mil
$5.0 Mil
$4.0 Mil
$3.0 Mil
$2.0 Mil
$1.0 Mil
$.0 Mil
Ending Cash Balance
Minimum Target Reserve Balance
2022
2023
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

CHART 3

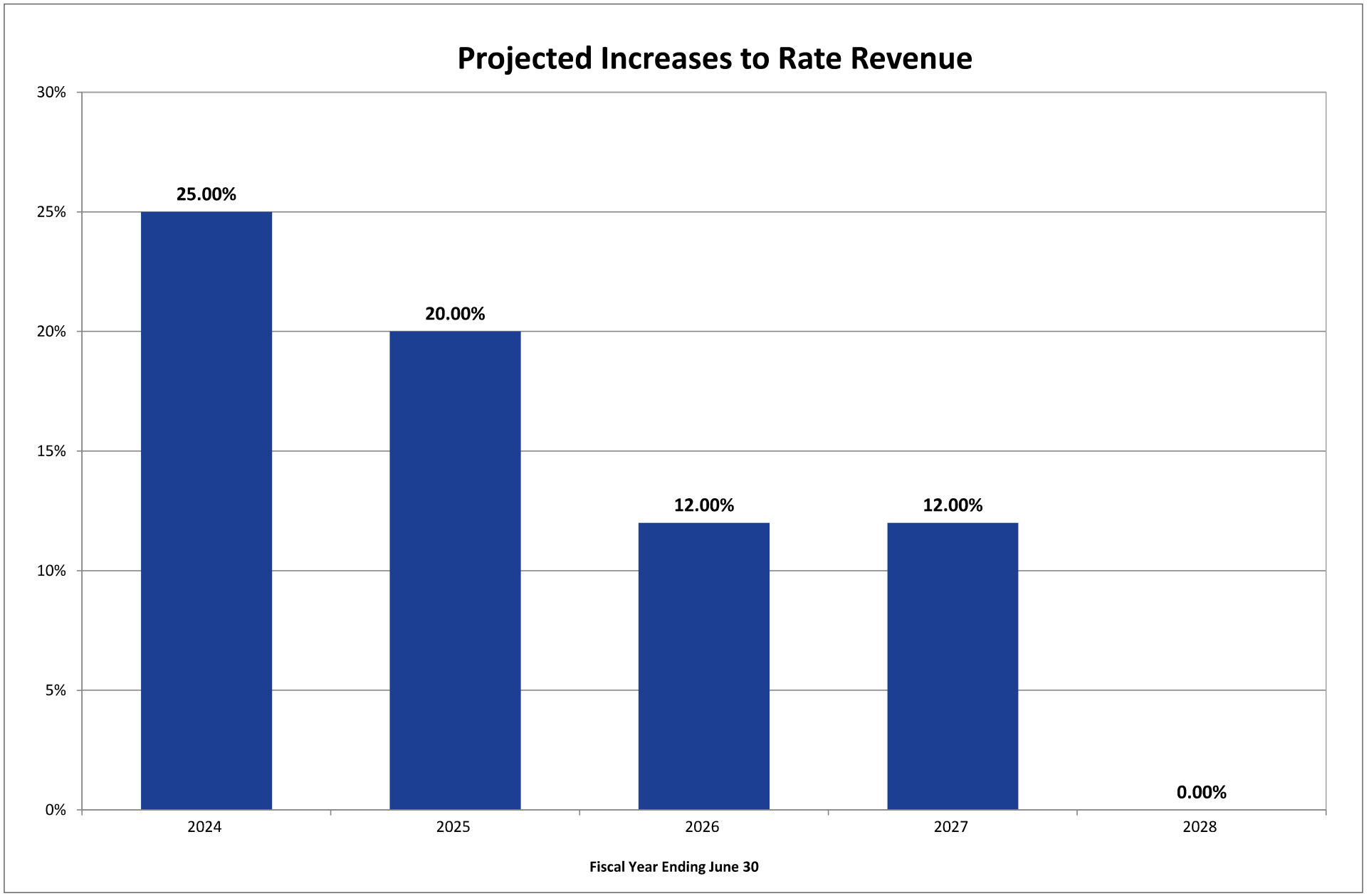

Projected Increases to Rate Revenue
30%
25%
20%
15%
10%
5%
0%
25.00%
20.00%
12.00%
12.00%
0.00%
2024
2025
2026
2027
2028
Fiscal Year Ending June 30

CHART 4

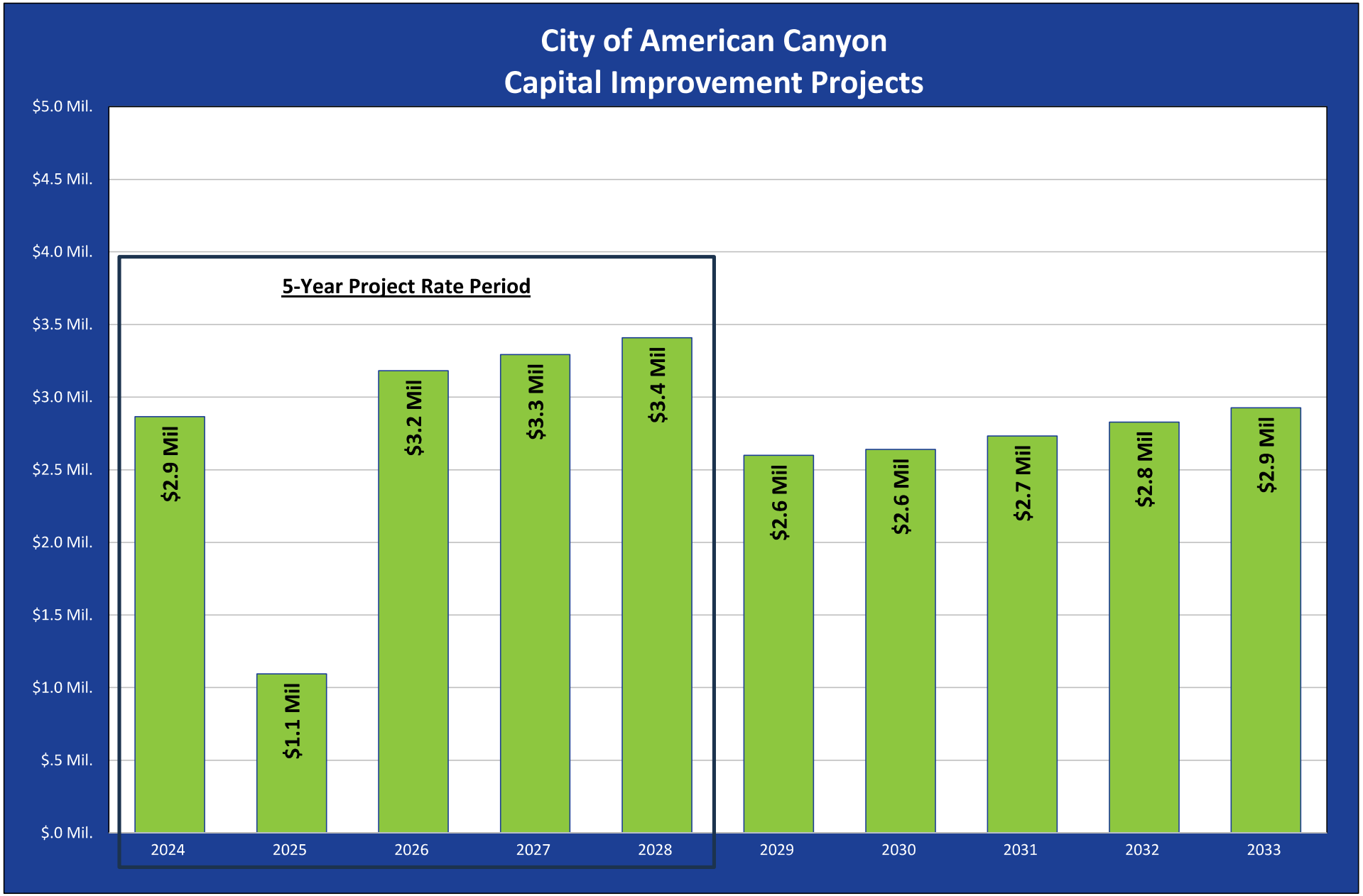

City of American Canyon
Capital Improvement Projects
$5.0 Mil.
$4.5 Mil.
$4.0 Mil.
$3.5 Mil.
$3.0 Mil.
$2.5 Mil.
$2.0 Mil.
$1.5 Mil.
$1.0 Mil.
$.5 Mil.
$.0 Mil.
5-Year Project Rate Period
$2.9 Mil
$1.1 Mil
$3.2 Mil
$3.3 Mil
$3.4 Mil
$2.6 Mil
$2.6 Mil
$2.7 Mil
$2.8 Mil
$2.9 Mil
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033

TABLE 3 : REVENUE FORECAST[1]

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Rate Revenue													
Sewer Service Charge	1	$ 4,824,937	$ 4,940,178	$ 5,042,690	$ 5,128,416	$ 5,215,599	$ 5,304,264	$ 5,394,436	$ 5,486,142	$ 5,573,920	$ 5,663,103	$ 5,753,713	$ 5,845,772
Other Revenue													
Misc. Revenues - Other	1	17,936	89,761	8,593	8,739	8,888	9,039	9,192	9,349	9,498	9,650	9,805	9,961
Late Penalties / Interest	1	64,931	81,785	90,000	91,530	93,086	94,668	96,278	97,915	99,481	101,073	102,690	104,333
Interest Income	See FP	28,277	166,693	120,000	-	-	-	-	-	-	-	-	-
Capacity Fee Revenue													
Capacity Fees	1	573,335	235,879	835,413	4,563,228	508,500	517,145	525,936	534,877	543,435	552,130	560,964	569,939
Interfund Transfer In (Loan Repayment)	8	-	-	-	-	453,816	453,816	453,816	453,816	453,816	453,816	453,816	453,816
Interest Income	See FP	26,256	157,984	136,186	198,000	-	-	-	-	-	-	-	-
TOTAL: REVENUE		**$ 5,535,672**	**$ 5,672,278**	**$ 6,232,882**	**$ 9,989,913**	**$ 6,279,888**	**$ 6,378,931**	**$ 6,479,658**	**$ 6,582,098**	**$ 6,680,150**	**$ 6,779,771**	**$ 6,880,987**	**$ 6,983,822**

TABLE 4 : REVENUE SUMMARY

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Rate Revenue													
Sewer Service Charge		$ 4,824,937	$ 4,940,178	$ 5,042,690	$ 5,128,416	$ 5,215,599	$ 5,304,264	$ 5,394,436	$ 5,486,142	$ 5,573,920	$ 5,663,103	$ 5,753,713	$ 5,845,772
Other Revenue													
Interest Income		28,277	166,693	120,000	-	-	-	-	-	-	-	-	-
Other Revenue		82,867	171,545	98,593	100,269	101,974	103,707	105,470	107,263	108,979	110,723	112,495	114,295
Capacity Fee Revenue													
Capacity Fees		573,335	235,879	835,413	4,563,228	508,500	517,145	525,936	534,877	543,435	552,130	560,964	569,939
Interfund Transfer In (Loan Repayment)		-	-	-	-	453,816	453,816	453,816	453,816	453,816	453,816	453,816	453,816
Interest Income		26,256	157,984	136,186	198,000	-	-	-	-	-	-	-	-
TOTAL: REVENUE		**$ 5,535,672**	**$ 5,672,278**	**$ 6,232,882**	**$ 9,989,913**	**$ 6,279,888**	**$ 6,378,931**	**$ 6,479,658**	**$ 6,582,098**	**$ 6,680,150**	**$ 6,779,771**	**$ 6,880,987**	**$ 6,983,822**

TABLE 5 : OPERATING EXPENSE FORECAST[1]

DESCRIPTION	Basis	Actuals	Actuals	5-Year Projected Rate Period					Projected				
		FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Fund 540 - Wastewater Operations													
570 - Wastewater Treatment Plant													
Wages - Full time	3	$ 495,550	$ 554,877	$ 602,884	$ 633,028	$ 655,184	$ 678,115	$ 701,849	$ 726,414	$ 751,839	$ 778,153	$ 805,388	$ 833,577
Wages - Overtime	3	13,725	27,777	-	-	-	-	-	-	-	-	-	-
Health Insurance	3	58,890	74,134	77,250	81,112	83,951	86,889	89,931	93,078	96,336	99,708	103,197	106,809
Health-In-Lieu	3	3,200	-	6,840	7,182	7,433	7,694	7,963	8,242	8,530	8,829	9,138	9,457
Cafeteria Plan Section 125	3	18,409	19,246	21,712	22,798	23,596	24,422	25,277	26,161	27,077	28,025	29,006	30,021
Social Security & Medicare	3	8,120	9,039	9,156	9,614	9,950	10,298	10,659	11,032	11,418	11,818	12,231	12,659
Worker Comp Insurance	3	32,204	29,763	39,875	41,869	43,334	44,851	46,421	48,045	49,727	51,467	53,269	55,133
Benefits - Other	3	-	280	1,135	1,192	1,233	1,276	1,321	1,367	1,415	1,465	1,516	1,569
Info Tech Support Services	2	7,478	5,486	73,500	75,705	77,976	80,315	82,725	85,207	87,763	90,396	93,108	95,901
Professional Services	2	34,840	52,991	187,138	192,752	198,535	204,491	210,625	216,944	223,453	230,156	237,061	244,173
Temp Agency Services	2	-	1,066	-	-	-	-	-	-	-	-	-	-
Misc. Contractual Services	2	8,911	8,380	17,900	18,437	18,990	19,560	20,147	20,751	21,374	22,015	22,675	23,355
General Repairs & Maint	2	307,866	145,560	201,500	207,545	213,771	220,184	226,790	233,594	240,602	247,820	255,254	262,912
Postage/Mail/Copy/Printing Svc	2	759	254	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305
Membership Dues & Subscription	2	21,708	1,315	12,700	13,081	13,473	13,878	14,294	14,723	15,164	15,619	16,088	16,571
Conferences - Training	2	3,357	1,440	14,500	14,935	15,383	15,845	16,320	16,809	17,314	17,833	18,368	18,919
Rentals - Equipment/Space	2	4,193	7,848	11,600	11,948	12,306	12,676	13,056	13,448	13,851	14,267	14,695	15,135
Office Supplies	2	4,298	4,668	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219
Operating Supplies	2	52,947	65,278	56,000	57,680	59,410	61,193	63,028	64,919	66,867	68,873	70,939	73,067
WW Treatment Plant Membranes	2	-	-	-	-	-	$2,458,636	-	-	-	-	-	-
Utilities - Gas & Elec	5	330,471	300,152	484,200	511,504	540,348	570,818	603,006	637,010	672,931	710,877	750,964	793,311
Util-PhonesPgrsInternetCable	5	16,694	18,326	19,000	20,071	21,203	22,399	23,662	24,996	26,406	27,895	29,468	31,129
Depreciation	2	1,561,144	1,746,613	-	-	-	-	-	-	-	-	-	-
Major Equipment	2	19,460	-	-	-	-	-	-	-	-	-	-	-
Capital Outlay-Contra Account	2	(31,535)	(4,906,869)	-	-	-	-	-	-	-	-	-	-
PERS Retirement	3	103,159	109,251	110,247	115,760	119,811	124,005	128,345	132,837	137,486	142,298	147,279	152,433
Subtotal - Wastewater Treatment Plant		**$ 3,075,847**	**$ (1,723,127)**	**$ 1,952,137**	**$ 2,041,362**	**$ 2,121,194**	**$ 4,663,008**	**$ 2,291,046**	**$ 2,381,374**	**$ 2,475,521**	**$ 2,573,662**	**$ 2,675,976**	**$ 2,782,656**

TABLE 6 : OPERATING EXPENSE FORECAST[1]

DESCRIPTION	Basis	Actuals	Actuals	5-Year Projected Rate Period					Projected				
		FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
575 - Wastewater Collections													
Wages - Full time	3	$ 268,022	$ 248,676	$ 411,834	$ 432,425	$ 447,560	$ 463,225	$ 479,438	$ 496,218	$ 513,586	$ 531,561	$ 550,166	$ 569,422
Wages - Overtime	3	7,125	1,721	5,000	5,250	5,434	5,624	5,821	6,024	6,235	6,454	6,679	6,913
Health Insurance	3	41,952	37,937	46,756	49,094	50,812	52,591	54,432	56,337	58,308	60,349	62,461	64,648
Health-In-Lieu	3	4,800	5,700	14,250	14,963	15,486	16,028	16,589	17,170	17,771	18,393	19,036	19,703
Cafeteria Plan Section 125	3	12,646	11,364	19,245	20,208	20,915	21,647	22,404	23,189	24,000	24,840	25,710	26,609
Social Security & Medicare	3	4,244	3,868	6,457	6,780	7,017	7,263	7,517	7,780	8,053	8,335	8,626	8,928
Worker Comp Insurance	3	30,604	32,837	36,753	38,591	39,941	41,339	42,786	44,283	45,833	47,438	49,098	50,816
Benefits - Other	3	1,319	1,471	1,918	2,014	2,084	2,157	2,233	2,311	2,392	2,475	2,562	2,652
Info Tech Support Services	2	302	702	94,600	97,438	100,361	103,372	106,473	109,667	112,957	116,346	119,836	123,432
Professional Services	2	-	4,425	20,000	20,600	21,218	21,855	22,510	23,185	23,881	24,597	25,335	26,095
Misc. Contractual Services	2	3,852	4,253	5,600	5,768	5,941	6,119	6,303	6,492	6,687	6,887	7,094	7,307
General Repairs & Maint	2	35,466	7,405	24,000	24,720	25,462	26,225	27,012	27,823	28,657	29,517	30,402	31,315
Membership Dues & Subscription	2	2,165	1,606	4,900	5,047	5,198	5,354	5,515	5,680	5,851	6,026	6,207	6,393
Conferences - Training	2	2,303	17,724	5,200	5,356	5,517	5,682	5,853	6,028	6,209	6,395	6,587	6,785
Rentals - Equipment/Space	2	-	-	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
Office Supplies	2	1,121	396	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572
Operating Supplies	2	27,795	32,450	42,100	43,363	44,664	46,004	47,384	48,805	50,270	51,778	53,331	54,931
Util-PhonesPgrsInternetCable	5	1,498	1,833	1,500	1,585	1,674	1,768	1,868	1,973	2,085	2,202	2,326	2,458
Major Equipment	2	19,460	709,259	-	-	-	-	-	-	-	-	-	-
PERS Retirement	3	44,845	57,704	75,748	79,535	82,319	85,200	88,182	91,268	94,463	97,769	101,191	104,733
Subtotal - Wastewater Collections		**$ 509,518**	**$ 1,181,331**	**$ 835,861**	**$ 873,335**	**$ 902,822**	**$ 933,308**	**$ 964,830**	**$ 997,421**	**$ 1,031,118**	**$ 1,065,960**	**$ 1,101,985**	**$ 1,139,234**

TABLE 7 : OPERATING EXPENSE FORECAST, cont.[1]

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
585 - Wastewater Environmental Compliance													
Wages - Full time	3	$ 175,790	$ 144,748	$ 194,374	$ 204,093	$ 211,236	$ 218,630	$ 226,282	$ 234,202	$ 242,399	$ 250,883	$ 259,664	$ 268,752
Wages - Overtime	3	-	182	500	525	543	562	582	602	624	645	668	691
Health Insurance	3	16,273	23,843	23,378	24,547	25,406	26,296	27,216	28,168	29,154	30,175	31,231	32,324
Health-In-Lieu	3	3,200	-	2,280	2,394	2,478	2,565	2,654	2,747	2,843	2,943	3,046	3,152
Cafeteria Plan Section 125	3	6,651	6,232	8,828	9,270	9,594	9,930	10,277	10,637	11,009	11,395	11,794	12,206
Social Security & Medicare	3	2,685	2,190	2,980	3,128	3,238	3,351	3,469	3,590	3,716	3,846	3,980	4,120
Worker Comp Insurance	3	5,101	11,826	18,594	19,524	20,208	20,915	21,647	22,404	23,189	24,000	24,840	25,710
Benefits - Other	3	-	559	641	673	696	721	746	772	799	827	856	886
Info Tech Support Services	2	368	-	59,650	61,440	63,283	65,181	67,137	69,151	71,225	73,362	75,563	77,830
Professional Services	2	115,883	108,682	253,000	260,590	268,408	276,460	284,754	293,296	302,095	311,158	320,493	330,108
General Repairs & Maint	2	8,426	9,674	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048
Postage/Mail/Copy.Printing Svc	2	103	6,182	13,000	13,390	13,792	14,205	14,632	15,071	15,523	15,988	16,468	16,962
Membership Dues & Subscription	2	822	11,770	12,600	12,978	13,367	13,768	14,181	14,607	15,045	15,496	15,961	16,440
Conferences - Training	2	275	7,531	21,800	22,454	23,128	23,821	24,536	25,272	26,030	26,811	27,616	28,444
Regulatory Compliance Permits	2	32,062	84,279	157,300	162,019	166,880	171,886	177,043	182,354	187,824	193,459	199,263	205,241
Operating Supplies	2	14,672	20,594	27,000	27,810	28,644	29,504	30,389	31,300	32,239	33,207	34,203	35,229
Major Equipment	2	-	9,918	25,000	25,750	26,523	27,318	28,138	28,982	29,851	30,747	31,669	32,619
Intra-fund Transfer Out Wastewater	2	-	-	-	-	-	-	-	-	-	-	-	-
PERS Retirement	3	31,779	41,525	25,730	27,016	27,962	28,941	29,953	31,002	32,087	33,210	34,372	35,575
Subtotal - Wastewater Environmental Compliance		**$ 414,090**	**$ 489,734**	**$ 856,655**	**$ 887,901**	**$ 915,994**	**$ 944,981**	**$ 974,890**	**$ 1,005,750**	**$ 1,037,594**	**$ 1,070,451**	**$ 1,104,354**	**$ 1,139,337**

TABLE 8 : OPERATING EXPENSE FORECAST, cont.[1]

DESCRIPTION	Basis	Actuals FY 2021/22	Actuals FY 2022/23	5-Year Projected Rate Period FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Projected FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Fund 80 - Non Departmental													
810 - Non Departmental													
Wages - Full time	3	$ 113,357	$ 136,471	$ 128,293	$ 134,707	$ 139,422	$ 144,302	$ 149,352	$ 154,580	$ 159,990	$ 165,590	$ 171,385	$ 177,384
Wages - Overtime	3	954	178	-	-	-	-	-	-	-	-	-	-
Allowances	3	1,811	1,920	1,920	2,016	2,087	2,160	2,235	2,313	2,394	2,478	2,565	2,655
Health Insurance	3	18,856	20,840	21,244	22,306	23,087	23,895	24,731	25,596	26,492	27,420	28,379	29,373
Cafeteria Plan Section 125	3	4,228	4,452	4,312	4,528	4,686	4,850	5,020	5,196	5,378	5,566	5,761	5,962
Social Security & Medicare	3	1,747	2,069	2,038	2,139	2,214	2,292	2,372	2,455	2,541	2,630	2,722	2,817
Worker Comp Insurance	3	7,901	7,096	9,825	10,316	10,677	11,051	11,438	11,838	12,252	12,681	13,125	13,584
OPEB	3	44,764	44,160	49,726	52,213	54,040	55,931	57,889	59,915	62,012	64,183	66,429	68,754
Pension Expense	3	(163,418)	47,287	-	-	-	-	-	-	-	-	-	-
Benefits - Other	3	1,371	1,421	-	-	-	-	-	-	-	-	-	-
Professional Services	2	-	-	100,000	103,000	106,090	109,273	112,551	115,927	119,405	122,987	126,677	130,477
Temp Agency Services	2	-	-	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829
Bad Debt Expense	2	(13,591)	9,434	-	-	-	-	-	-	-	-	-	-
Membership Dues & Subscription	2	197	457	1,400	1,442	1,485	1,530	1,576	1,623	1,672	1,722	1,773	1,827
Conferences - Training	2	30	-	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
Office Supplies	2	-	625	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305
Utilities - Water	5	11,868	14,702	14,000	14,789	15,623	16,504	17,435	18,418	19,457	20,554	21,713	22,938
Intra-fund Transfer Out Wastewater	2	605,656	281,641	290,090	298,793	307,757	316,989	326,499	336,294	346,383	356,774	367,478	378,502
Transfer to Gen Fnd Support Sv	2	763,512	985,309	1,123,854	1,157,570	1,192,297	1,228,066	1,264,908	1,302,855	1,341,940	1,382,199	1,423,665	1,466,375
Transfer To General Fund - Other	2	2,394	481	-	-	-	-	-	-	-	-	-	-
Trans to Other Funds	2	-	17,129	-	-	-	-	-	-	-	-	-	-
Services - Other	2	20,296	812	-	-	-	-	-	-	-	-	-	-
Retiree Health Benefits	3	60,317	60,646	78,433	82,355	85,238	88,221	91,309	94,504	97,812	101,235	104,779	108,446
PERS Retirement	3	17,037	18,820	16,257	17,070	17,667	18,286	18,926	19,588	20,274	20,983	21,717	22,478
ISF - Bldg Maint	2	59,800	176,525	262,206	270,072	278,174	286,520	295,115	303,969	313,088	322,480	332,155	342,119
ISF - Fleet	2	138,950	106,843	163,573	168,480	173,535	178,741	184,103	189,626	195,315	201,174	207,209	213,426
ISF - Info Tech	2	93,500	194,110	237,073	244,185	251,511	259,056	266,828	274,833	283,078	291,570	300,317	309,326
ISF - Legal Services	2	28,800	24,347	99,499	102,484	105,558	108,725	111,987	115,347	118,807	122,371	126,042	129,824
Subtotal - Non Departmental		**$ 1,820,335**	**$ 2,157,776**	**$ 2,615,743**	**$ 2,700,825**	**$ 2,783,879**	**$ 2,869,503**	**$ 2,957,779**	**$ 3,048,788**	**$ 3,142,618**	**$ 3,239,356**	**$ 3,339,093**	**$ 3,441,923**
GRAND TOTAL: SEWER EXPENSES		**$ 5,819,790**	**$ 2,105,714**	**$ 6,260,396**	**$ 6,503,425**	**$ 6,723,889**	**$ 9,410,800**	**$ 7,188,544**	**$ 7,433,334**	**$ 7,686,851**	**$ 7,949,428**	**$ 8,221,408**	**$ 8,503,149**

TABLE 9 : FORECASTING ASSUMPTIONS

INFLATION FACTORS[3]	Basis	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Customer Growth[4]	1	--	1.80%	1.80%	1.70%	1.70%	1.70%	1.70%	1.70%	1.60%	1.60%	1.60%	1.60%
General Cost Inflation[5]	2	--	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Labor Cost Inflation[6]	3	--	3.50%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Energy[7]	4	--	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%	7.44%
Electricty[8]	5	--	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%	5.64%
Fuel & Utilities[9]	6	--	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%	5.24%
Construction Cost Inflation[10]	7	--	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
No Escalation	8	--	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Revenue and expenses for FY 2021/22 through FY 2023/24 provided by the City. Revenues and expenses for all other years are escalated based on the forecasting assumptions located in Table 9 *above* . Source files: *Fund 540 Wastewater Operations Fund 510 - 580 FY 23-24 Budget Status as of 09-19-2023* , *FY 22 Fund 550 Wastewater Cap Revenue Detail Trial Balance* , *FY 23 Fund 550 Wastewater Cap Revenue Detail Trial Balance, & REV EXP ACTUALS - FY22 and FY23_NBS*
2. Expenses are inflated each year by the following annual inflation factor categories.
3. Customer growth is based on service area population growth through FY 2039/40. Source file: *American Canyon 2015 UWMP.pdf* , page 26.
4. General cost inflation is based on the 5-year average annual change in the Consumer Price Index for all Urban Consumers in the San Francisco-Oakland-Hayward, CA area.
5. Labor cost inflation is based on the 5-year average annual change in the Quarterly Census of Employment and Wages for San Francisco County, CA.
6. Energy cost inflation is based on the 5-year average annual change in the Consumer Price Index for all Urban Consumers in the San Francisco-Oakland-Hayward, CA area.
7. Electricity cost inflation is based on the 5-year average change in the Consumer Price Index for San Francisco County.
8. Fuel & Utilities cost inflation is based on the 5-year average annual change in the Consumer Price Index - Average Price Data for Fuels and related products and power. This factor is used for utility costs other than electricity.
9. Construction cost Inflation is the 10-year average change in the Construction Cost Index for 2012-2022. Source: Engineering News Record website (*http://enr.construction.com*).

TABLE 10 : CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST	Actuals	Actuals	5-Year Projected Rate Period					Projected				
Funding Sources:	**FY 2021/22**	**FY 2022/23**	**FY 2023/24**	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**	**FY 2028/29**	**FY 2029/30**	**FY 2030/31**	**FY 2031/32**	**FY 2032/33**
Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Use of Capacity Fee Reserves	-	-	291,480	897,942	2,070,444	3,278,183	1,177,570	1,181,673	1,187,638	1,194,792	1,202,725	1,211,189
SRF Loan Funding	-	-	-	-	-	-	-	-	-	-	-	-
Use of Future Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Use of Capital Rehabilitation and Replacement Reserve	-	-	-	-	-	-	-	10,869	1,119,393	1,537,538	1,625,237	1,715,751
Rate Revenue	345,549	3,201,161	2,573,447	197,942	1,111,368	14,992	2,230,867	1,406,839	332,901	-	-	-
Total Sources of Capital Funds	**$ 345,549**	**$ 3,201,161**	**$ 2,864,927**	**$ 1,095,884**	**$ 3,181,812**	**$ 3,293,175**	**$ 3,408,436**	**$ 2,599,381**	**$ 2,639,932**	**$ 2,732,330**	**$ 2,827,961**	**$ 2,926,940**
Uses of Capital Funds:												
Total Project Costs	$ 345,549	$ 3,201,161	$ 2,864,927	$ 1,095,884	$ 3,181,812	$ 3,293,175	$ 3,408,436	$ 2,599,381	$ 2,639,932	$ 2,732,330	$ 2,827,961	$ 2,926,940
Capital Funding Surplus (Deficiency)	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

CAPITAL IMPROVEMENT PROGRAM FUNDING OPTIONS

Capital Improvement Program Funding Choice	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Effective Annual Funding Amount	$ 345,549	$ 3,201,161	$ 2,864,927	$ 1,095,884	$ 3,181,812	$ 3,293,175	$ 3,408,436	$ 2,599,381	$ 2,639,932	$ 2,732,330	$ 2,827,961	$ 2,926,940

TABLE 11 : CAPITAL IMPROVEMENT PROGRAM COSTS (*in Current-Year Dollars*)[1]

Project Description		FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Capital Projects													
	2020 Annual Pavement Management Project	$ 42,008	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TR24-0300	ARPA Rancho Del Mar Paving and Utility Improvements	-	-	1,334,000	-	-	-	-	-	-	-	-	-
WW16-0300	SCADA Improvements	-	250,000	250,000	-	-	-	-	-	-	-	-	-
WW20-0100	SS4 Broadway Sewer Rehabilitation (Crawford to Poco)	-	375,000	1,000,000	250,000	-	-	-	-	-	-	-	-
WW22-0100	UV Disinfection	-	500,000	-	-	-	-	-	-	-	-	-	-
WW22-0200	Blower Replacement	-	500,000	-	-	-	-	-	-	-	-	-	-
WW21-0400	Sanitary Sewer Manhole Rehab	-	100,000	-	-	-	-	-	-	-	-	-	-
UM20-0100	Engie Energy Services Contract	291,856	122,618	-	-	-	-	-	-	-	-	-	-
Master Plan Projects - Wastewater Collection System [2]													
SS1	Rio Del Mar Basin	$ -	$ -	$ -	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ -	$ -	$ -	$ -	$ -
SS2	Napa Logistics and Green Island Pump Station	-	1,140,700	-	-	-	-	-	-	-	-	-	-
SS3	Huntington Way (Rio Del Mar to W American Canyon Road)	-	-	-	-	458,000	458,000	458,000	458,000	458,000	458,000	458,000	458,000
SS5	Summerfield Project	-	-	-	-	37,000	37,000	37,000	37,000	-	-	-	-
SS6	Theresa Avenue and Los Altos Drive	-	-	-	205,000	205,000	205,000	205,000	-	-	-	-	-
SS7	Main Basin Pump Station	-	-	-	-	1,199,000	1,199,000	1,199,000	1,199,000	1,199,000	1,199,000	1,199,000	1,199,000
SS8	Broadway, Cartagena Way to Mobile Home Park Entrance	-	-	-	-	68,000	68,000	68,000	68,000	68,000	68,000	68,000	68,000
SS9	Elliott Drive south of Northampton	-	-	-	-	109,000	109,000	109,000	109,000	109,000	109,000	109,000	109,000
SS10	Broadway north of Rio Del Mar	-	-	-	-	103,000	103,000	103,000	103,000	103,000	103,000	103,000	103,000
Estimated Future Projects													
Future Projects[3]		-	-	-	-	-	-						
Total: Capital Improvement Program Costs *(Current-Year Dollars)*		**$ 333,864**	**$ 2,988,318**	**$ 2,584,000**	**$ 955,000**	**$ 2,679,000**	**$ 2,679,000**	**$ 2,679,000**	**$ 1,974,000**	**$ 1,937,000**	**$ 1,937,000**	**$ 1,937,000**	**$ 1,937,000**

TABLE 12 : CAPITAL IMPROVEMENT PROGRAM COSTS (*in Future-Year Dollars*)[4]

Project Description		FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Capital Projects													
	2020 Annual Pavement Management Project	$ 43,478	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TR24-0300	ARPA Rancho Del Mar Paving and Utility Improvements	-	-	1,479,030	-	-	-	-	-	-	-	-	-
WW16-030(	SCADA Improvements	-	267,806	277,179	-	-	-	-	-	-	-	-	-
WW20-010(	SS4 Broadway Sewer Rehabilitation	-	401,709	1,108,718	286,881	-	-	-	-	-	-	-	-
WW22-010(	UV Disinfection	-	535,613	-	-	-	-	-	-	-	-	-	-
WW22-020(	Blower Replacement	-	535,613	-	-	-	-	-	-	-	-	-	-
WW21-040(	Sanitary Sewer Manhole Rehab	-	107,123	-	-	-	-	-	-	-	-	-	-
UM20-0100	Engie Energy Services Contract	302,071	131,351	-	-	-	-	-	-	-	-	-	-
Master Plan Projects - Wastewater Collection System [2]													
SS1	Rio Del Mar Basin	$ -	$ -	$ -	$ 573,762	$ 593,843	$ 614,628	$ 636,140	$ -	$ -	$ -	$ -	$ -
SS2	Napa Logistics and Green Island Pump Station	-	1,221,946	-	-	-	-	-	-	-	-	-	-
SS3	Huntington Way	-	-	-	-	543,960	562,999	582,704	603,099	624,207	646,054	668,666	692,069
SS5	Summerfield Project	-	-	-	-	43,944	45,482	47,074	48,722	-	-	-	-
SS6	Theresa Avenue and Los Altos Drive	-	-	-	235,242	243,476	251,997	260,817	-	-	-	-	-
SS7	Main Basin Pump Station	-	-	-	-	1,424,036	1,473,877	1,525,463	1,578,854	1,634,114	1,691,308	1,750,504	1,811,771
SS8	Broadway, Cartagena Way to Mobile Home Park Entrance	-	-	-	-	80,763	83,589	86,515	89,543	92,677	95,921	99,278	102,753
SS9	Elliott Drive south of Northampton	-	-	-	-	129,458	133,989	138,678	143,532	148,556	153,755	159,137	164,706
SS10	Broadway north of Rio Del Mar	-	-	-	-	122,332	126,613	131,045	135,631	140,378	145,292	150,377	155,640
Estimated Future Projects													
Future Projects[3]		-	-	-	-	-	-	-	-	-	-	-	-
Total: Capital Improvement Program Costs *(Future-Year Dollars)*		**$ 345,549**	**$ 3,201,161**	**$ 2,864,927**	**$ 1,095,884**	**$ 3,181,812**	**$ 3,293,175**	**$ 3,408,436**	**$ 2,599,381**	**$ 2,639,932**	**$ 2,732,330**	**$ 2,827,961**	**$ 2,926,940**

TABLE 13 : FORECASTING ASSUMPTIONS

Economic Variables	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
Annual Construction Cost Inflation, Per Engineering News Record[5]	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*
Cumulative Construction Cost Multiplier from FY 2021/22	*1.04*	*1.07*	*1.11*	*1.15*	*1.19*	*1.23*	*1.27*	*1.32*	*1.36*	*1.41*	*1.46*	*1.51*

1. Capital project costs were provided by City staff. Source files: *11. CIP Budget vs Expense Report FY 2021-2022 through Oct 2021.pdf* & *Wastewater FY 2023-2027.xlsx* .
2. The City's Wastewater Collection System Master Plan projects were scheduled to begin in 2016; however, the study only includes costs from FY 2021/22 through FY 2034/35. Source file: *2016 Sewer Master Plan.pdf* , page 52.
3. Future project costs beyond FY 2034/35 are calculated based on the City's 10-year average.
4. Capital improvement projects are inflated to future year estimated costs with ENR CCI for the region. Source: Engineering News Record website (*http://enr.construction.com*).
5. For reference purposes, the annual Construction Cost Inflation percentage is the 10-year average change in the Construction Cost Index for September 2012-2022 (3.50%). Source: *Engineering News Record website (http://enr.construction.com).*

TABLE 14 : SEWER UTILITY EXISTING DEBT OBLIGATIONS

EXISTING DEBT OBLIGATIONS	Actuals	Actuals	5-Year Projected Rate Period					Projected				
Annual Repayment Schedules:	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
City National Bank - Loan Amount $2,004,200[1]												
Principal Payment	$ 155,243	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest Payment	1,979	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Annual Debt Service	**$ 157,222**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Coverage Requirement ($-Amnt above annual payment)[2]	$ 180,805	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Requirement (total fund balance)[2]	$ 157,222	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
SWRCB: Project No. C-06-4666-110 & Agreement No. 99819-550-0[3]												
Principal Payment	$ 722,377	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest Payment	-	-	-	-	-	-	-	-	-	-	-	-
Other Charges	19,504	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Annual Debt Service	**$ 741,881**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Coverage Requirement ($-Amnt above annual payment)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Requirement (total fund balance)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Bank of America Public Capital Corp Agreement (ENGIE) - Loan Amount $5,209,209[4]												
Principal Payment	$ 161,088	$ 154,345	$ 165,634	$ 177,478	$ 180,996	$ 199,515	$ 213,287	$ 189,719	$ 202,626	$ 216,158	$ 228,580	$ 241,999
Interest Payment	55,123	52,295	49,440	46,378	43,173	39,781	36,097	32,472	28,971	25,233	21,262	17,061
Subtotal: Annual Debt Service	**$ 216,211**	**$ 206,640**	**$ 215,074**	**$ 223,856**	**$ 224,168**	**$ 239,297**	**$ 249,385**	**$ 222,191**	**$ 231,597**	**$ 241,391**	**$ 249,843**	**$ 259,060**
Coverage Requirement ($-Amnt above annual payment)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reserve Requirement (total fund balance)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Grand Total: Existing Annual Debt Service	**$ 1,115,315**	**$ 206,640**	**$ 215,074**	**$ 223,856**	**$ 224,168**	**$ 239,297**	**$ 249,385**	**$ 222,191**	**$ 231,597**	**$ 241,391**	**$ 249,843**	**$ 259,060**
Grand Total: Existing Annual Coverage Requirement	**$ 180,805**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Grand Total: Existing Debt Reserve Target	**$ 157,222**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

TABLE 15 : SEWER UTILITY EXISTING DEBT OBLIGATIONS, cont.

EXISTING DEBT OBLIGATIONS	Actuals	Actuals	5-Year Projected Rate Period					Projected				
Annual Repayment Schedules:	**FY 2021/22**	**FY 2022/23**	**FY 2023/24**	**FY 2024/25**	**FY 2025/26**	**FY 2026/27**	**FY 2027/28**	**FY 2028/29**	**FY 2029/30**	**FY 2030/31**	**FY 2031/32**	**FY 2032/33**
Interfund Loans *(For information only)*												
Wastewater Capacity to Wastewater Fund												
Advance from WW Capacity 550 to Wastewater Operations 540												
Original Loan Amount (December 1, 2008)	**$ 1,285,000**											
Interest *(for budget purposes only)*	**146,147**											
Annual Debt Service[5]		*$159,325*	*$159,325*	*$159,325*	*$159,325*	*$159,325*	*$159,325*	*$159,325*	*$159,325*	*$159,325*	*$159,325*	$ -
Wastewater Capacity to Recycled Water Fund												
Advance from WW Capacity 550 to Recycled Water Operations 580												
Original Loan Amount (March 11, 2011)	**$ 1,070,000**											
Interest *(for budget purposes only)*	**205,869**											
Annual Debt Service[6]		$ -	$ -	$ -	*$99,295*	*$99,295*	*$99,295*	*$99,295*	*$99,295*	*$99,295*	*$99,295*	*$99,295*
Wastewater Capacity to Recycled Water Fund												
Advance from WW Capacity 550 to Recycled Water Operations 580												
Original Loan Amount (December 15, 2009)	**$ 304,614**											
Interest *(for budget purposes only)*	**58,577**											
Annual Debt Service[7]		$ -	$ -	$ -	$ *28,266*	$ *28,266*	$ *28,266*	$ *28,266*	$ *28,266*	$ *28,266*	$ *28,266*	$ *28,266*
Wastewater Capacity to Recycled Water Fund												
Advance from WW Capacity 550 to Recycled Water Operations 580												
Original Loan Amount (December 15, 2009)	**$ 3,532,410**											
Interest *(for budget purposes only)*	**659,727**											
Annual Debt Service[8]		$ -	$ -	$ -	$ *326,255*	$ *326,255*	$ *326,255*	$ *326,255*	$ *326,255*	$ *326,255*	$ *326,255*	$ *326,255*

1. Loan originally issued between Municipal Finance Corporation, City National Bank, and the City of American Canyon. Source files: *5 - Debt Service Schedules.xlsx* & *6 - Wastewater Membrane Agreement.pdf* .
2. Coverage and reserve requirements were provided by the City. Source files: *6 - Wastewater Membrane Agreement.pdf* , pages 9 & 12.
3. State Revolving Fund Loan issued in September 1999 in that amount of $10,859,470. Source file: *6 - SWRCB Agreement 99-819-550-0 4666-110 Executed Amendment #2_11-12-14.pdf* .
4. Equipment lease/purchase loan issued by Bank of America for equipment upgrades, replacements and installation to provide energy savings for the City. Sewer utility portion is 59.43%, or $3,095,832.91 (Principal). Source file: *6 - ENGIE Closing Documents.pdf* .
5. Funds advanced for capital projects. Repayment scheduled to begin FY 2022/23.
6. Funds advanced for Green Island Recycled Waterline Project. Repayment scheduled to begin FY 2025/26.
7. Funds advance for Recycled Water Pump Station Upgrade. Repayment scheduled to begin FY 2025/26.
8. Funds advanced for various CIP projects. Repayment scheduled to begin FY 2025/26.

TABLE 16 : EXISTING ANNUAL DEBT OBLIGATIONS TO BE SATISFIED BY SEWER RATES

Annual Obligations	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Existing Annual Debt Service	***$ 1,115,315***	***$ 206,640***	***$ 215,074***	***$ 223,856***	***$ 224,168***	***$ 239,297***	***$ 249,385***	***$ 222,191***	***$ 231,597***	***$ 241,391***	***$ 249,843***	***$ 259,060***
Existing Annual Coverage Requirement	***$ 180,805***	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Existing Debt Reserve Target	***$ 157,222***	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

TABLE 17 : CURRENT SEWER RATE SCHEDULE

Sewer Rate Schedule[1]	Description	Current Rates Jan. 1, 2023
Single-Family Residential - Monthly Fixed Service Charges		
Low Winter Water Use	4 units or less	$56.79
Average Winter Water Use (Standard)	4.1 – 13 units	$60.48
High Winter Water Use	13.01 units and above	$62.65
All Other Monthly Fixed Service Charges		
Multi-Family Residential	Per Dwelling Unit	$45.36
Commercial	Whichever is greater	$60.48 or $5.40 per unit

1. Sewer rates are set according to the average monthly water use for January to March of the previous calendar year. New customers are charged at the average winter use rate (standard) and adjusted the following year, if applicable.

TABLE 18 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Flow	Strength		Customer	Basis of Classification			
	FY 2023/24	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
Fund 540 - Wastewater Operations									
570 - Wastewater Treatment Plant									
Wages - Full time	$ 602,884	$ 307,471	$ 132,634	$ 132,634	$ 30,144	51%	22%	22%	5%
Health Insurance	77,250	39,397	16,995	16,995	3,862	51%	22%	22%	5%
Health-In-Lieu	6,840	3,488	1,505	1,505	342	51%	22%	22%	5%
Cafeteria Plan Section 125	21,712	11,073	4,777	4,777	1,086	51%	22%	22%	5%
Social Security & Medicare	9,156	4,669	2,014	2,014	458	51%	22%	22%	5%
Worker Comp Insurance	39,875	20,336	8,772	8,772	1,994	51%	22%	22%	5%
Benefits - Other	1,135	579	250	250	57	51%	22%	22%	5%
Info Tech Support Services	73,500	37,485	16,170	16,170	3,675	51%	22%	22%	5%
Professional Services	187,138	95,440	41,170	41,170	9,357	51%	22%	22%	5%
Misc. Contractual Services	17,900	9,129	3,938	3,938	895	51%	22%	22%	5%
General Repairs & Maint	201,500	102,765	44,330	44,330	10,075	51%	22%	22%	5%
Postage/Mail/Copy/Printing Svc	1,000	510	220	220	50	51%	22%	22%	5%
Membership Dues & Subscription	12,700	6,477	2,794	2,794	635	51%	22%	22%	5%
Conferences - Training	14,500	7,395	3,190	3,190	725	51%	22%	22%	5%
Rentals - Equipment/Space	11,600	5,916	2,552	2,552	580	51%	22%	22%	5%
Office Supplies	4,000	2,040	880	880	200	51%	22%	22%	5%
Operating Supplies	56,000	28,560	12,320	12,320	2,800	51%	22%	22%	5%
WW Treatment Plant Membranes	-	-	-	-	-	51%	22%	22%	5%
Utilities - Gas & Elec	484,200	246,942	106,524	106,524	24,210	51%	22%	22%	5%
Util-PhonesPgrsInternetCable	19,000	9,690	4,180	4,180	950	51%	22%	22%	5%
PERS Retirement	110,247	56,226	24,254	24,254	5,512	51%	22%	22%	5%
Subtotal - Wastewater Treatment Plant	**$ 1,952,137**	**$ 995,590**	**$ 429,470**	**$ 429,470**	**$ 97,607**	**51%**	**22%**	**22%**	**5%**

TABLE 19 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Flow	Strength		Customer	Basis of Classification			
	FY 2023/24	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
Fund 540 - Wastewater Operations									
575 - Wastewater Collections									
Wages - Full time	$ 411,834	$ 411,834	$ -	$ -	$ -	100%	0%	0%	0%
Wages - Overtime	5,000	5,000	-	-	-	100%	0%	0%	0%
Health Insurance	46,756	46,756	-	-	-	100%	0%	0%	0%
Health-In-Lieu	14,250	14,250	-	-	-	100%	0%	0%	0%
Cafeteria Plan Section 125	19,245	19,245	-	-	-	100%	0%	0%	0%
Social Security & Medicare	6,457	6,457	-	-	-	100%	0%	0%	0%
Worker Comp Insurance	36,753	36,753	-	-	-	100%	0%	0%	0%
Benefits - Other	1,918	1,918	-	-	-	100%	0%	0%	0%
Info Tech Support Services	94,600	94,600	-	-	-	100%	0%	0%	0%
Professional Services	20,000	20,000	-	-	-	100%	0%	0%	0%
Misc. Contractual Services	5,600	5,600	-	-	-	100%	0%	0%	0%
General Repairs & Maint	24,000	24,000	-	-	-	100%	0%	0%	0%
Membership Dues & Subscription	4,900	4,900	-	-	-	100%	0%	0%	0%
Conferences - Training	5,200	5,200	-	-	-	100%	0%	0%	0%
Rentals - Equipment/Space	5,000	5,000	-	-	-	100%	0%	0%	0%
Office Supplies	15,000	15,000	-	-	-	100%	0%	0%	0%
Operating Supplies	42,100	42,100	-	-	-	100%	0%	0%	0%
Util-PhonesPgrsInternetCable	1,500	1,500	-	-	-	100%	0%	0%	0%
PERS Retirement	75,748	75,748	-	-	-	100%	0%	0%	0%
Subtotal - Wastewater Collections	**$ 835,861**	**$ 835,861**	**$ -**	**$ -**	**$ -**	**100%**	**0%**	**0%**	**0%**

TABLE 20 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Flow	Strength		Customer	Basis of Classification			
	FY 2023/24	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
Fund 540 - Wastewater Operations									
585 - Wastewater Environmental Compliance									
Wages - Full time	$ 194,374	$ 99,131	$ 42,762	$ 42,762	$ 9,719	51%	22%	22%	5%
Wages - Overtime	500	255	110	110	25	51%	22%	22%	5%
Health Insurance	23,378	11,923	5,143	5,143	1,169	51%	22%	22%	5%
Health-In-Lieu	2,280	1,163	502	502	114	51%	22%	22%	5%
Cafeteria Plan Section 125	8,828	4,502	1,942	1,942	441	51%	22%	22%	5%
Social Security & Medicare	2,980	1,520	655	655	149	51%	22%	22%	5%
Worker Comp Insurance	18,594	9,483	4,091	4,091	930	51%	22%	22%	5%
Benefits - Other	641	327	141	141	32	51%	22%	22%	5%
Info Tech Support Services	59,650	30,422	13,123	13,123	2,983	51%	22%	22%	5%
Professional Services	253,000	129,030	55,660	55,660	12,650	51%	22%	22%	5%
General Repairs & Maint	10,000	5,100	2,200	2,200	500	51%	22%	22%	5%
Postage/Mail/Copy.Printing Svc	13,000	6,630	2,860	2,860	650	51%	22%	22%	5%
Membership Dues & Subscription	12,600	6,426	2,772	2,772	630	51%	22%	22%	5%
Conferences - Training	21,800	11,118	4,796	4,796	1,090	51%	22%	22%	5%
Regulatory Compliance Permits	157,300	80,223	34,606	34,606	7,865	51%	22%	22%	5%
Operating Supplies	27,000	13,770	5,940	5,940	1,350	51%	22%	22%	5%
Major Equipment	25,000	12,750	5,500	5,500	1,250	51%	22%	22%	5%
PERS Retirement	25,730	13,122	5,661	5,661	1,286	51%	22%	22%	5%
Subtotal - Wastewater Environmental Compliance	**$ 856,655**	**$ 436,894**	**$ 188,464**	**$ 188,464**	**$ 42,833**	**51%**	**22%**	**22%**	**5%**

TABLE 21 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Flow	Strength		Customer	Basis of Classification			
	FY 2023/24	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
Fund 80 - Non Departmental									
810 - Non Departmental									
Wages - Full time	$ 128,293	$ 65,429	$ 28,224	$ 28,224	$ 6,415	51%	22%	22%	5%
Allowances	1,920	979	422	422	96	51%	22%	22%	5%
Health Insurance	21,244	10,834	4,674	4,674	1,062	51%	22%	22%	5%
Cafeteria Plan Section 125	4,312	2,199	949	949	216	51%	22%	22%	5%
Social Security & Medicare	2,038	1,039	448	448	102	51%	22%	22%	5%
Worker Comp Insurance	9,825	5,011	2,161	2,161	491	51%	22%	22%	5%
OPEB	49,726	25,360	10,940	10,940	2,486	51%	22%	22%	5%
Professional Services	100,000	51,000	22,000	22,000	5,000	51%	22%	22%	5%
Temp Agency Services	6,000	3,060	1,320	1,320	300	51%	22%	22%	5%
Membership Dues & Subscription	1,400	714	308	308	70	51%	22%	22%	5%
Conferences - Training	5,000	2,550	1,100	1,100	250	51%	22%	22%	5%
Office Supplies	1,000	510	220	220	50	51%	22%	22%	5%
Utilities - Water	14,000	7,140	3,080	3,080	700	51%	22%	22%	5%
Intra-fund Transfer Out Wastewater	290,090	147,946	63,820	63,820	14,505	51%	22%	22%	5%
Transfer to Gen Fnd Support Sv	1,123,854	573,166	247,248	247,248	56,193	51%	22%	22%	5%
Retiree Health Benefits	78,433	40,001	17,255	17,255	3,922	51%	22%	22%	5%
PERS Retirement	16,257	8,291	3,577	3,577	813	51%	22%	22%	5%
ISF - Bldg Maint	262,206	133,725	57,685	57,685	13,110	51%	22%	22%	5%
ISF - Fleet	163,573	83,422	35,986	35,986	8,179	51%	22%	22%	5%
ISF - Info Tech	237,073	120,907	52,156	52,156	11,854	51%	22%	22%	5%
ISF - Legal Services	99,499	50,744	21,890	21,890	4,975	51%	22%	22%	5%
Subtotal - Non Department	**$ 2,615,743**	**$ 1,334,029**	**$ 575,463**	**$ 575,463**	**$ 130,787**	**51%**	**22%**	**22%**	**5%**
Total: Sewer Operations Expenses	**$ 6,260,396**	**$ 3,602,374**	**$ 1,193,398**	**$ 1,193,398**	**$ 271,227**	**58%**	**19%**	**19%**	**4%**

TABLE 22 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Classification of Expenses, cont.									
Budget Categories	Total Revenue Requirements	Flow	Strength		Customer	Basis of Classification			
	FY 2023/24	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
Debt Service Payments									
Outstanding Debt	215,074	107,537	53,768	53,768	-	50%	25%	25%	0%
New Debt Issue - SRF Loan	-	-	-	-	-	50%	25%	25%	0%
New Debt Issue - Revenue Bond	-	-	-	-	-	50%	25%	25%	0%
Total Debt Service Payments	**$ 215,074**	**$ 107,537**	**$ 53,768**	**$ 53,768**	**$ -**	**50%**	**25%**	**25%**	**0%**
Capital Expenditures									
Rate Funded Capital Expenses	$ 2,573,447	$ 1,286,724	$ 643,362	$ 643,362	$ -	50%	25%	25%	0%
TOTAL REVENUE REQUIREMENTS	**$ 9,048,917**	**$ 4,996,634**	**$ 1,890,528**	**$ 1,890,528**	**$ 271,227**	**55%**	**21%**	**21%**	**3%**
Less: Non-Rate Revenues									
Rate Revenue									
Interest Income	$ (120,000)	$ (61,200)	$ (26,400)	$ (26,400)	$ (6,000)	51%	22%	22%	5%
Other Revenue	(98,593)	(50,282)	(21,690)	(21,690)	(4,930)	51%	22%	22%	5%
NET REVENUE REQUIREMENTS	**$ 8,830,324**	**$ 4,885,152**	**$ 1,842,438**	**$ 1,842,438**	**$ 260,297**				
Allocation of Revenue Requirements	**100.0%**	**55.3%**	**20.9%**	**20.9%**	**2.9%**				

TABLE 23 : ADJUSTMENT TO CLASSIFICATION OF EXPENSES FOR COST-OF-SERVICE ANALYSIS

Adjustment to Current Rate Level:	Total	(VOL)	(BOD)	(TSS)	(CA)
FY 2023/24 Target Rate Rev. After Rate Increases	$ 6,303,363				
Projected Rate Revenue at Current Rates	$ 5,042,690				
FY 2023/24 Projected Rate Increase	*25%*				
Adjusted Net Revenue Req'ts	**$ 6,303,363**	**$ 3,487,175**	**$ 1,315,190**	**$ 1,315,190**	**$ 185,808**
Percent of Revenue		*55.3%*	*20.9%*	*20.9%*	*2.9%*

TABLE 24 : NET REVENUE REQUIREMENTS PER COSA RESULTS - PROPOSED ALTERNATIVE

Net Revenue Requirements (PROPOSED ALTERNATIVE - 45% Fixed / 55% Variable)					
Rate-Design Adjustments to Percentages	**100.0%**	**55.3%**	**20.9%**	**20.9%**	**2.9%**
Rate-Design Adjustments to Dollars	**$ 6,303,363**	**$ 3,487,175**	**$ 1,315,190**	**$ 1,315,190**	**$ 185,808**

TABLE 25 : ADJUSTMENT TO COST OF SERVICE RATES

Ratio of Targeted Rate Revenue to Net Revenue Requirements	Total	(VOL)	(BOD)	(TSS)	(CA)
Actual Total Fixed Costs	$ 2,788,521	$ 1,394,261	$ 697,130	$ 697,130	$ -
Adjusted Total Fixed Costs	$ 1,990,534	$ 995,267	$ 497,633	$ 497,633	$ -
Total Operating Costs	$ 6,260,396	$ 3,602,374	$ 1,193,398	$ 1,193,398	$ 271,227
Less: Non Rate Revenue	$ (218,593)	$ (111,482)	$ (48,090)	$ (48,090)	$ (10,930)
Actual Net Operating Costs	$ 6,041,803	$ 3,490,891	$ 1,145,307	$ 1,145,307	$ 260,297
Adjusted Net Operating Costs	$ 4,312,829	$ 2,491,908	$ 817,556	$ 817,556	$ 185,808
Actual Net Revenue Requirements	$ 8,830,324	$ 4,885,152	$ 1,842,438	$ 1,842,438	$ 260,297
Adjusted Net Revenue Requirements	$ 6,303,363	$ 3,487,175	$ 1,315,190	$ 1,315,190	$ 185,808

TABLE 26 : DEVELOPMENT OF THE FLOW ALLOCATION FACTOR

Customer Class[1]	Number of Dwelling Units / Accounts[2]	Consumption (hcf/year)	Winter Consumption (Jan-Mar. '22)	Annualized Winter Consumption (hcf)	Adjusted Winter Volume (gallons)[3]	Design Capacity: Flow MGD	Design Capacity: BOD mg/l	Design Capacity: TSS mg/l	Design Capacity: BOD lbs/day	Design Capacity: TSS lbs/day	Total Annual Volume: Flow MG	Total Annual Volume: BOD mg/l[4]	Total Annual Volume: BOD lbs	Total Annual Volume: % of Total BOD	Total Annual Volume: TSS mg/l[4]	Total Annual Volume: TSS lbs	Total Annual Volume: % of Total TSS
Residential Customers																	
Single Family Residential	4,710	507,339	117,749	470,996	352,328,558	0.97	175	175	1,409	1,409	352	*n/a*	514,224	**69.4%**	*n/a*	514,224	**69.8%**
Multi-Family Residential	1,265	89,630	20,169	80,676	60,349,682	0.17	175	175	241	241	60	*n/a*	88,080	**11.9%**	*n/a*	88,080	**12.0%**
All Other Customers																	
Commercial	177	318,808	65,311	261,244	195,423,574	0.13	300	300	335	335	49	*n/a*	122,237	**16.5%**	*n/a*	122,237	**16.6%**
Industrial[5]																	
Hess Collection Winery	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	0.01	50	30	4	2	3.64	8.6	260	**0.0%**	2.3	70	**0.0%**
AmCan Beverage (Coca-Cola)	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	0.13	200	220	209	229	45.63	23.1	8,782	**1.2%**	5.3	1,998	**0.3%**
Mezzetta Processing Facility	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	0.04	150	220	51	74	14.82	61.7	7,631	**1.0%**	81.2	10,035	**1.4%**
Total:	**6,152**	**915,777**	**203,229**	**812,916**	**608,101,814**	**1.44**			**2,248**	**2,291**	**526**		**741,214**	**100.0%**		**736,644**	**100.0%**

1. Customer data provided by the City for FY 2021/22. Source file: *FY 2021-22 Summary by Rate Code - Detailed v2.xlsx* .
2. SFR, MFR, and Industrial customers are based on the number of dwelling units and all other customers are based on the number of accounts.
3. Annual consumption for all customer classes based on average winter water consumption.
4. Annual volume and strength factors provided by the City. Source file: *SIU 2 year data.xlsx* .
5. Flow for industrial customer is based on wastewater flow. Strength factors are based on input from City staff and lower than expected due to customers' pretreatment process. Source file: *INF-001 & SIU Flow.xlsx* .

TABLE 27 : DEVELOPMENT OF THE CUSTOMER ALLOCATION FACTOR

Customer Class	Number of Dwelling Units / Accounts[1]	Percent of Total
Residential Customers		
Single Family Residential	4,710	**76.5%**
Multi-Family Residential	1,265	**20.6%**
All Other Customers		
Commercial	177	**2.9%**
Industrial[1]		
Hess Collection Winery	1	**0.0%**
AmCan Beverage (Coca-Cola)	1	**0.0%**
Mezzetta Processing Facility	1	**0.0%**
Total:	**6,155**	**100.0%**

1. SFR, MFR, and Industrial customers are based on the number of dwelling units and all other customers are based on the number of accounts.

TABLE 28 : ESTIMATED FLOW PER DWELLING UNIT

Customer Class	Est. Annual Wastewater Flow (hcf)	Est. Flow/DU/ Day (gallons)	Percent of Total
Residential Customers			
Single Family Residential	470,996	205	--
Multi-Family Residential	80,676	131	**63.78%**

TABLE 29 : ALLOCATION OF SEWER REVENUE REQUIREMENTS	Total	(FLOW)	(BOD)	(TSS)	(CA)
Total Fixed Costs	$ 1,990,534	$ 995,267	$ 497,633	$ 497,633	$ -
Net Operating Costs	**$ 4,312,829**	**$ 2,491,908**	**$ 817,556**	**$ 817,556**	**$ 185,808**
Net Revenue Requirements	**$ 6,303,363**	**$ 3,487,175**	**$ 1,315,190**	**$ 1,315,190**	**$ 185,808**
Capacity Charges to recover Fixed Costs		**Flow ($/MGD)**	**BOD ($/lbs/day)**	**TSS ($/lbs/day)**	
Fixed Costs		$ 995,267	$ 497,633	$ 497,633	
Design Capacity		1.44	2,248	2,291	
		$ 691,132.43	**$ 221.32**	**$ 217.18**	
User Charges		**Flow ($/MG)**	**BOD ($/lb)**	**TSS ($/lb)**	
Net operating Costs		$ 2,491,908	$ 817,556	$ 817,556	
Annual Volumes		526	741,214	736,644	
		$ 4,740.90	**$ 1.10**	**$ 1.11**	
					Acct. Charge ($/yr)
Customer Costs					$ 185,808
Number of Accounts					6,155
					$ 30.19

TABLE 30 : ALLOCATION OF SEWER REVENUE REQUIREMENTS

Development of Allocation Factors	Net Revenue Requirements - Design Capacity				
Customer Class	**Total**	**Volume**	**BOD**	**TSS**	**Customer**
Residential Customers					
Single Family Residential	$ 1,284,903	$ 667,139	$ 311,800	$ 305,964	$ -
Multi-Family Residential	220,089	114,273	53,408	52,408	-
All Other Customers					
Commercial	$ 239,360	$ 92,509	$ 74,119	$ 72,731	$ -
Industrial					
Hess Collection Winery	$ 8,355	$ 6,892	$ 920	$ 542	$ -
AmCan Beverage (Coca-Cola)	182,346	86,392	46,145	49,809	-
Mezzetta Processing Facility	55,483	28,062	11,242	16,179	-
Total:	**$ 1,990,534**	**$ 995,267**	**$ 497,633**	**$ 497,633**	**$ -**

TABLE 31 : ALLOCATION OF SEWER REVENUE REQUIREMENTS

Development of Allocation Factors	Net Revenue Requirements - Operating Costs				
Customer Class	**Total**	**Volume**	**BOD**	**TSS**	**Customer**
Residential Customers					
Single Family Residential	$ 2,808,246	$ 1,670,355	$ 567,186	$ 570,705	$ -
Multi-Family Residential	481,019	286,112	97,152	97,755	-
All Other Customers					
Commercial	$ 502,112	$ 231,621	$ 134,827	$ 135,664	$ -
Industrial					
Hess Collection Winery	$ 17,621	$ 17,257	$ 286	$ 78	$ -
AmCan Beverage (Coca-Cola)	228,207	216,304	9,687	2,217	-
Mezzetta Processing Facility	89,814	70,260	8,417	11,137	-
Total:	**$ 4,127,020**	**$ 2,491,908**	**$ 817,556**	**$ 817,556**	**$ -**

TABLE 32 : ALLOCATION OF SEWER REVENUE REQUIREMENTS

Development of Allocation Factors	Net Revenue Requirements - Customer Costs				
Customer Class	Total	Volume	BOD	TSS	Customer
Residential Customers					
Single Family Residential	$ 142,186	$ -	$ -	$ -	$ 142,186
Multi-Family Residential	38,188	-	-	-	38,188
All Other Customers					
Commercial	$ 5,343	$ -	$ -	$ -	$ 5,343
Industrial					
Hess Collection Winery	$ 30	$ -	$ -	$ -	$ 30
AmCan Beverage (Coca-Cola)	30	-	-	-	30
Mezzetta Processing Facility	30	-	-	-	30
Total:	**$ 185,808**	**$ -**	**$ -**	**$ -**	**$ 185,808**
Grand Total:	**$ 6,303,363**	**$ 3,487,175**	**$ 1,315,190**	**$ 1,315,190**	**$ 185,808**

TABLE 33 : ALLOCATION OF NET REVENUE REQUIREMENTS TO CUSTOMER CLASSES - PROPOSED ALTERNATIVE

Customer Class	Cost Classification Components				Cost-of-Service Net Revenue Reqts.	% of COS Net Revenue Reqts.
	Volume	BOD	TSS	Customer		
Net Revenue Requirements [1]	***$ 3,487,175***	***$ 1,315,190***	***$ 1,315,190***	***$ 185,808***	***$ 6,303,363***	--
	55.3%	*20.9%*	*20.9%*	*2.9%*	*100.0%*	
Residential Customers						
Single Family Residential	$ 2,337,493	$ 878,986	$ 876,669	$ 142,186	$ 4,235,335	*67.2%*
Multi-Family Residential	400,385	150,560	150,163	38,188	739,296	*11.7%*
All Other Customers						
Commercial	$ 324,130	$ 208,946	$ 208,395	$ 5,343	$ 746,815	*11.8%*
Industrial						
Hess Collection Winery	$ 24,149	$ 1,207	$ 620	$ 30	$ 26,006	*0.4%*
AmCan Beverage (Coca-Cola)	302,695	55,832	52,026	30	410,583	*6.5%*
Mezzetta Processing Facility	98,322	19,659	27,316	30	145,327	*2.3%*
Total:	**$ 3,487,175**	**$ 1,315,190**	**$ 1,315,190**	**$ 185,808**	**$ 6,303,363**	**100%**

1. Revenue requirement for each customer class is determined by multiplying the revenue requirement from each cost classification by the allocation factors for each customer class.

TABLE 34 : CALCULATION OF PROPOSED SEWER RATES FOR RESIDENTIAL CUSTOMERS

Customer Class	No. of Dwelling Units	Annual Revenue Requirement	Monthly Fixed Charge Per Dwelling Unit
Residential Customers			
Single Family Residential	4,710	$ 4,235,335	$74.94
Multi-Family Residential	1,265	739,296	$48.70
Subtotal: Residential	**5,975**	**$ 4,974,631**	

TABLE 35 : CALCULATION OF PROPOSED SEWER RATES FOR COMMERCIAL CUSTOMERS - PROPOSED ALTERNATIVE

Customer Class	No. of Accounts	Annual Volume (hcf)	Total Annual Revenue Requirement	Monthly Capacity Per Account	Monthly Customer Charge Per Account	Monthly Fixed Charge Per Account[1]	Volumetric Charge Per hcf
Commercial							
Commercial	177	261,244	$ 746,815	$112.69	$ 2.52	$115.21	$1.92

1. Monthly fixed charge is the based fixed charge plus the monthly customer charge per the number of accounts.

TABLE 36 : CALCULATION OF PROPOSED SEWER RATES FOR INDUSTRIAL CUSTOMERS

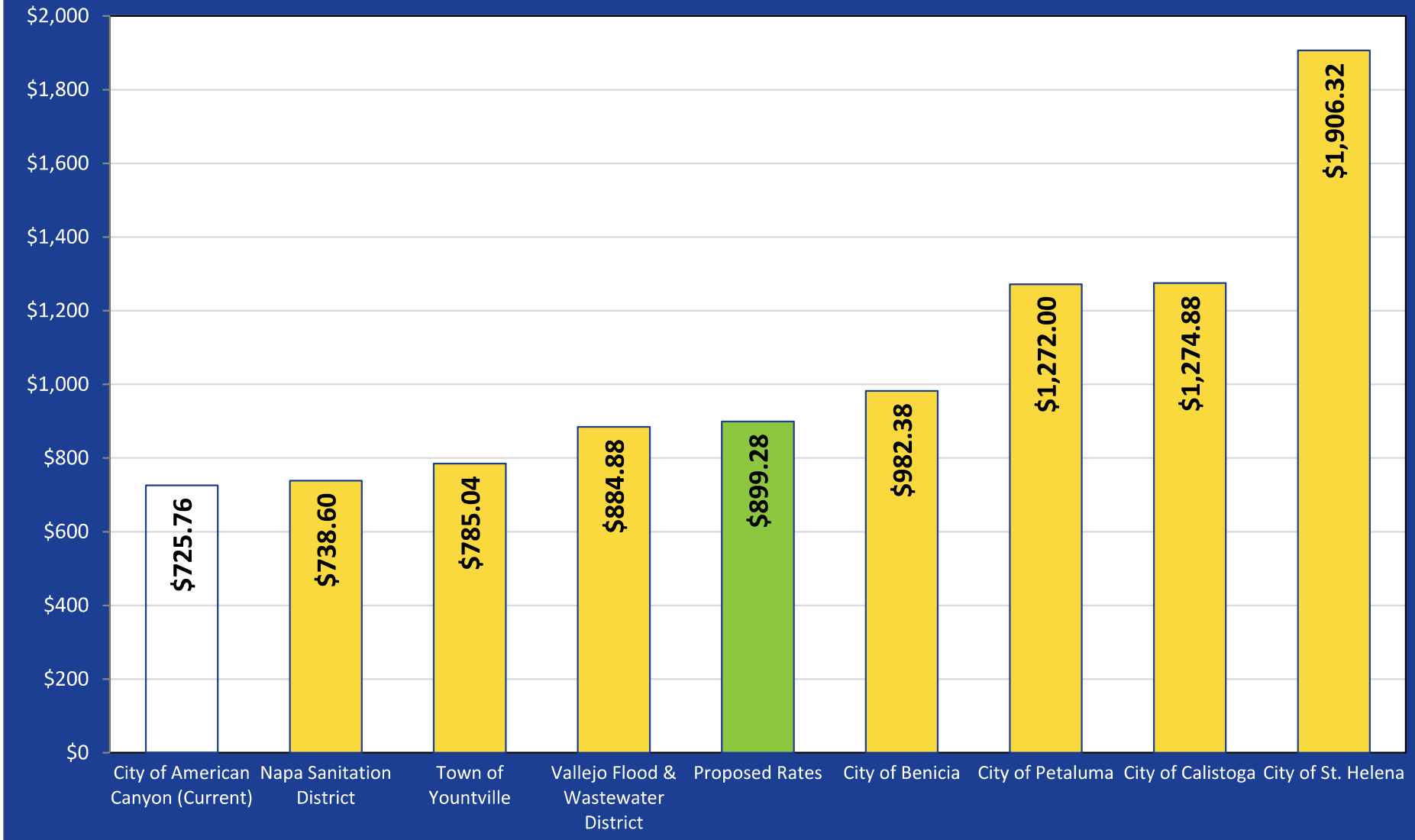
Customer Class	Total Annual Revenue Requirement	Annual Volumes	Proposed Rates
Industrial			
Monthly Fixed Administrative Charge	$ 91		$3
Fixed Charges (Design Capacity)			
Flow - per HCF per day	$ 121,346	235 HCF per day	$517
BOD - per pound per day	58,307	263 lbs./day	$221
TSS - per pound per day	66,530	306 lbs./day	$217
Sewer Use Charges			
Flow - per HCF	$ 303,821	85,675 HCF	$3.54
BOD - per pound	18,390	16,673 lbs.	$1.10
TSS - pound	13,432	12,103 lbs.	$1.11

TABLE 37 : CURRENT VS. PROPOSED SEWER RATES

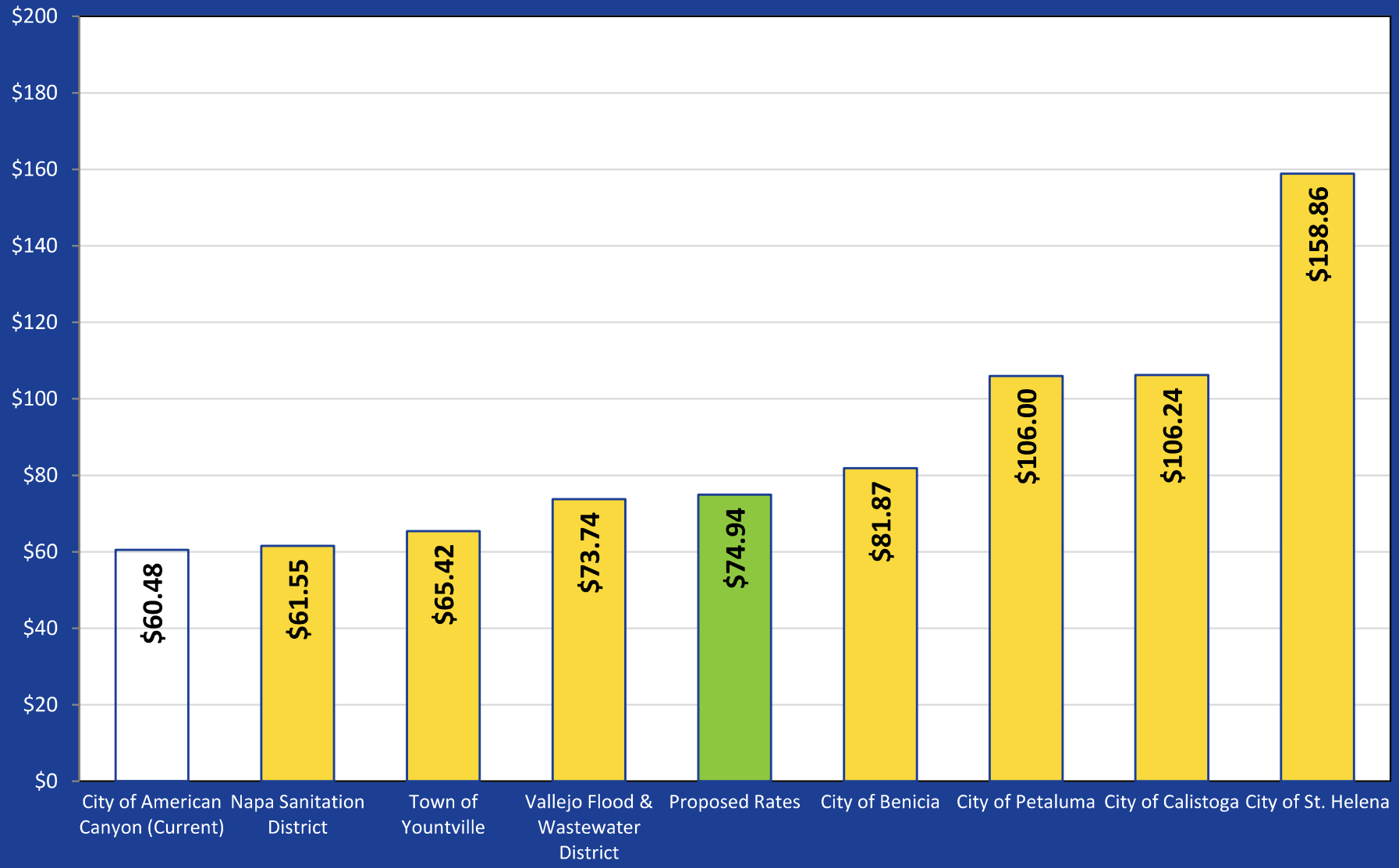
Sewer Rate Schedule[1,2]	Description	Current Rates	Proposed Sewer Rates				
			FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
			25.00%	*20.00%*	*12.00%*	*12.00%*	*0.00%*
Residential - Monthly Fixed Service Charges							
Single Family Residential	Per Dwelling Unit	$60.48	$74.94	$89.93	$100.72	$112.81	$112.81
Multi-Family Residential	Per Dwelling Unit	$45.36	$48.70	$58.44	$65.45	$73.31	$73.31
Commercial Customers [3]							
Monthly Fixed Service Charge	Per Account	$60.48	$115.21	$138.25	$154.84	$173.42	$173.42
Volumetric Rate	Per HCF	$5.40	$1.92	$2.31	$2.58	$2.89	$2.89
Industrial Customers							
Monthly Fixed Administrative Charge	Per Account	*n/a*	$2.52	$3.02	$3.38	$3.79	$3.79
Fixed Charges							
Flow - per HCF per day	Per HCF per day Sewage Flow	*n/a*	$517	$620	$695	$778	$778
BOD - per pound per day	Per pound per day	*n/a*	$221	$266	$297	$333	$333
TSS - per pound per day	Per pound per day	*n/a*	$217	$261	$292	$327	$327
Sewer Use Charges							
Flow - per HCF	Per HCF Sewage Flow	*n/a*	$3.54	$4.24	$4.75	$5.32	$5.32
BOD - per pound	Per pound	*n/a*	$1.10	$1.32	$1.48	$1.66	$1.66
TSS - pound	Per pound	*n/a*	$1.11	$1.33	$1.49	$1.67	$1.67

1. Sewer rates are set according to the average monthly water use for January to March of the previous calendar year. New customers are charged at the average winter water use rate (standard) and adjusted the following year if applicable.
2. The fixed charge includes a monthly customer charge per account.
3. Current rates for commercial customers are charged the higher of the fixed or variable rate. Proposed rates have both a fixed and volumetric charge per commercial customer.

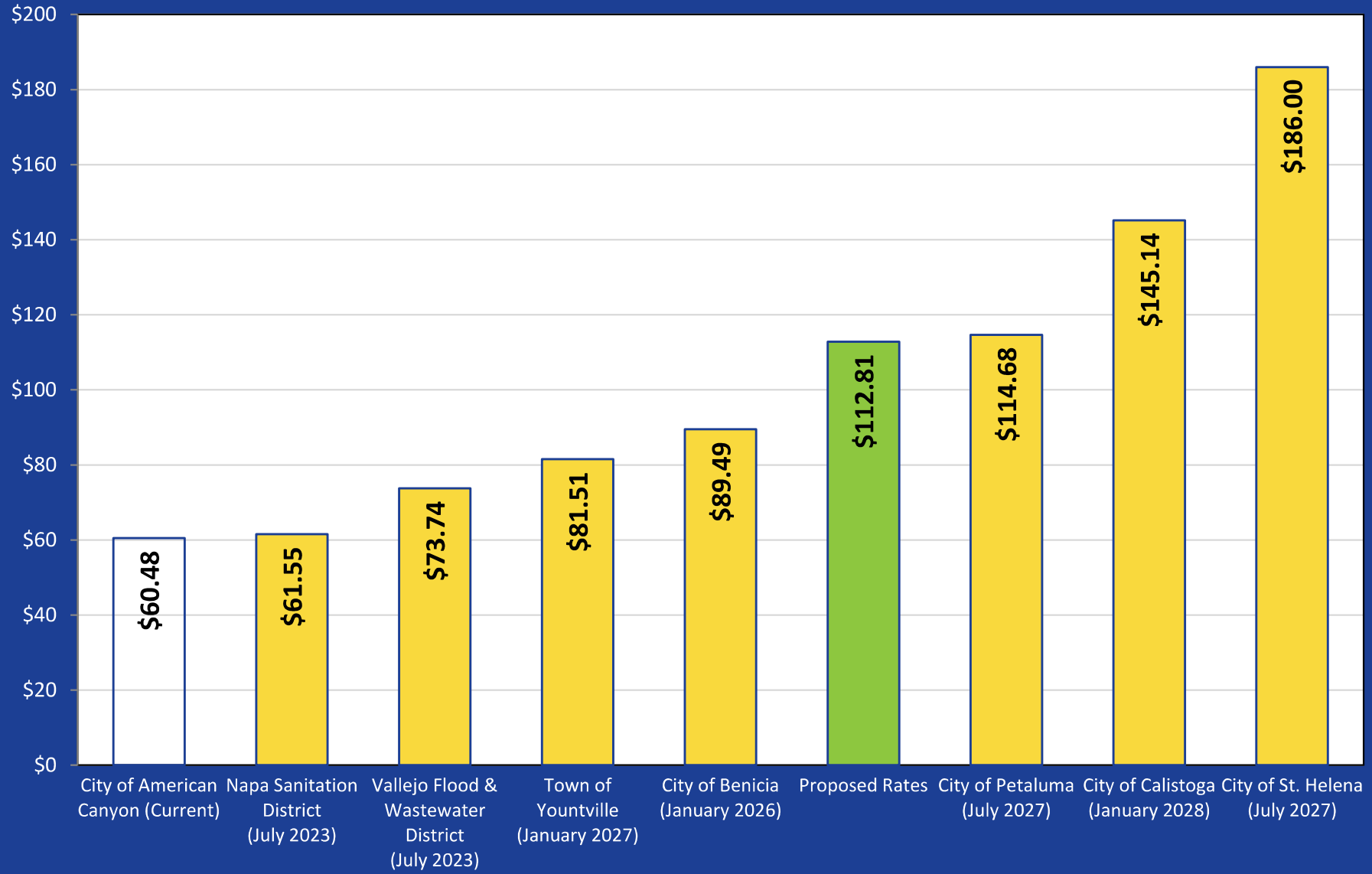
City of American Canyon (Year 1)
Annual Sewer Bill Comparison - Single Family Accounts

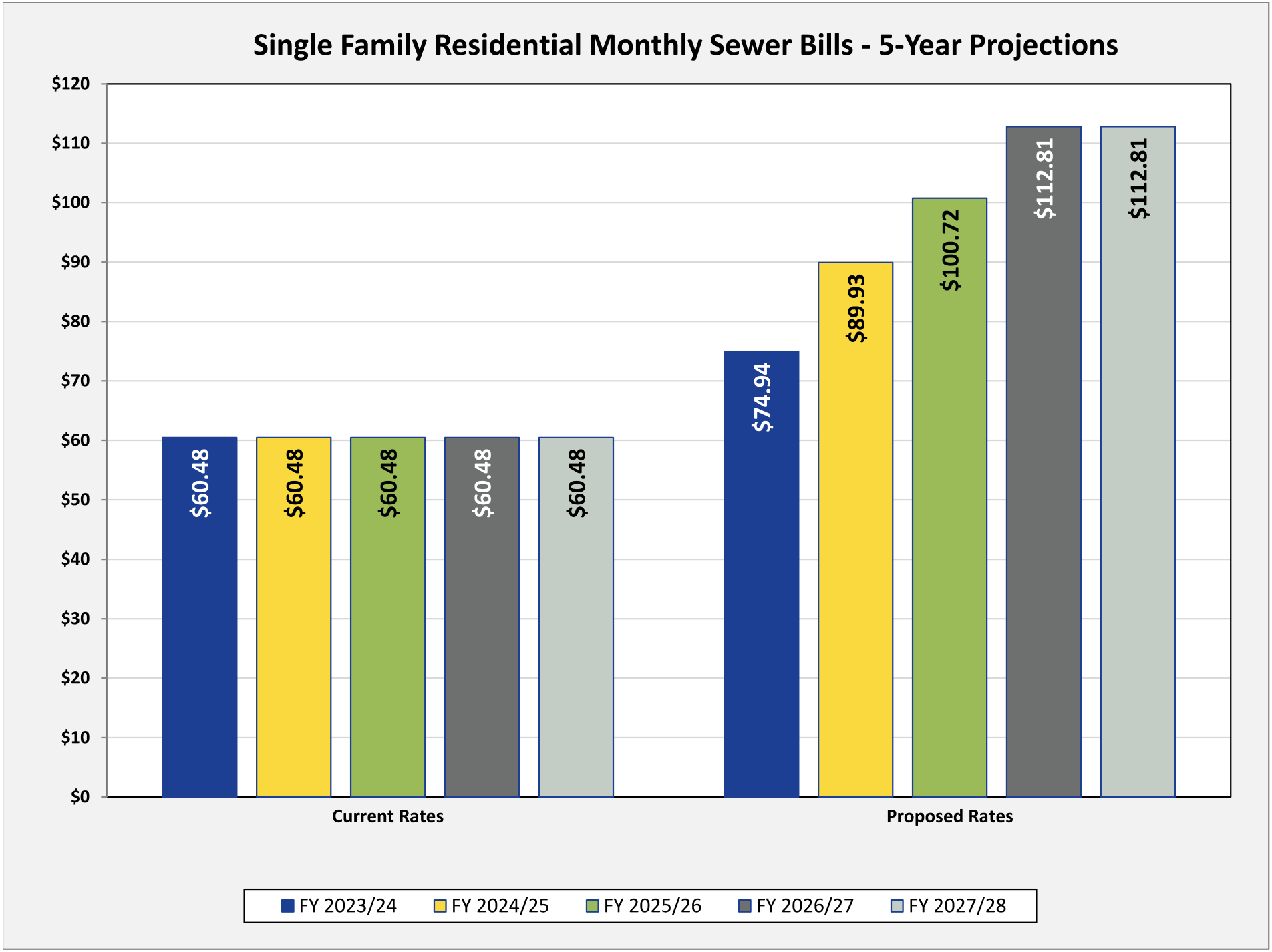


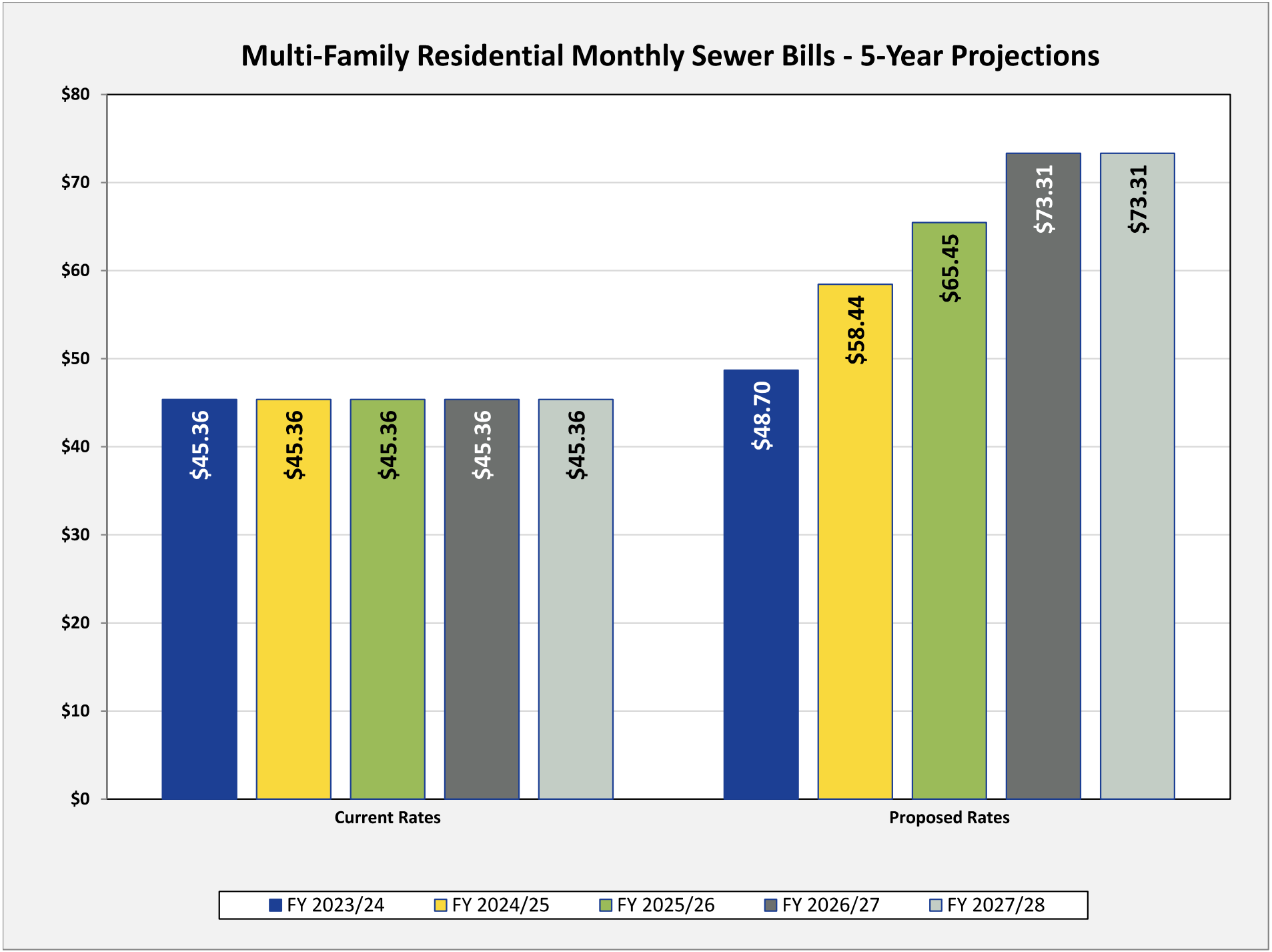
City of American Canyon (Year 1)
Monthly Sewer Bill Comparison - Single Family Accounts

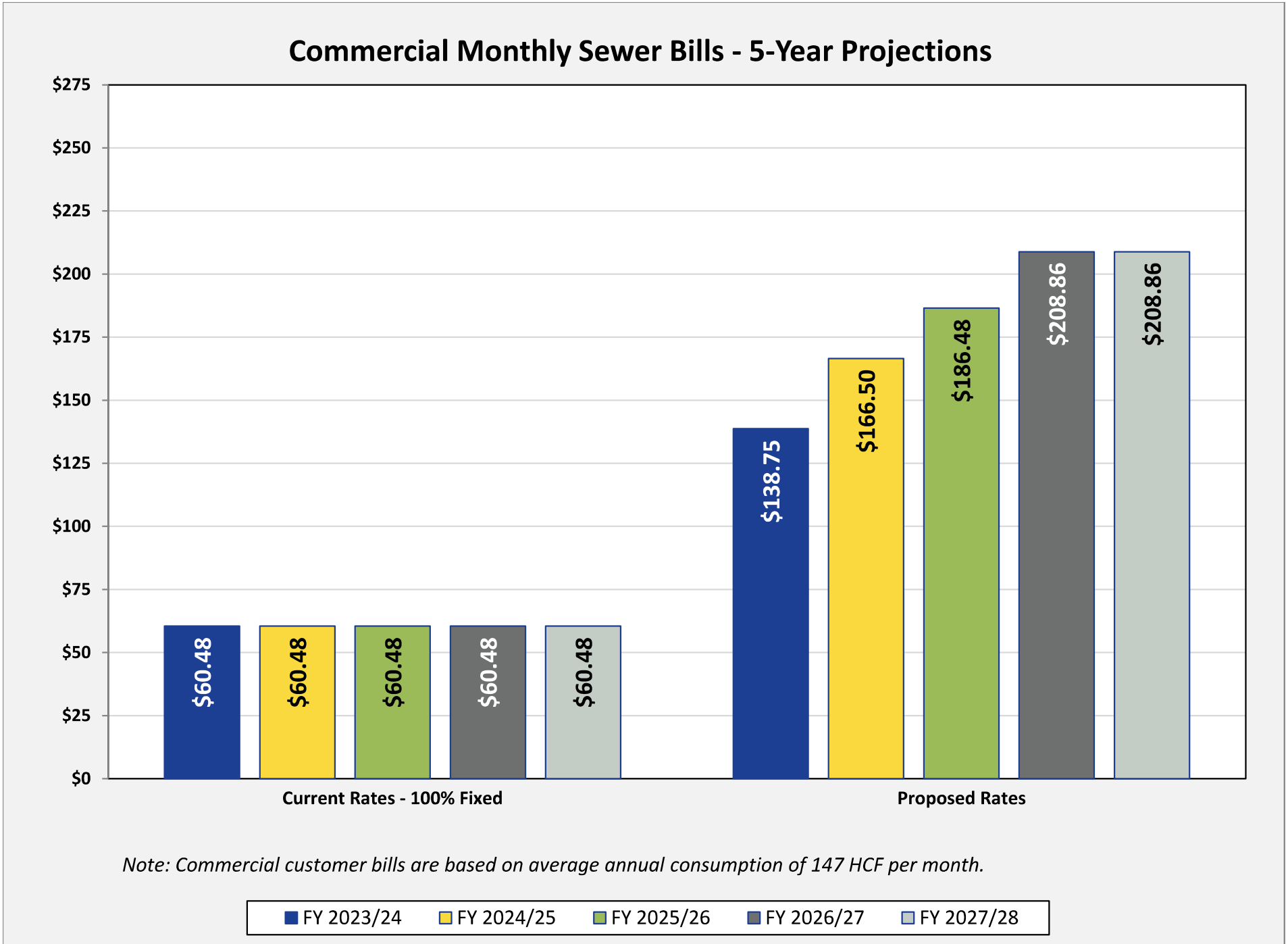


City of American Canyon (Year 5)
Monthly Sewer Bill Comparison - Single Family Accounts

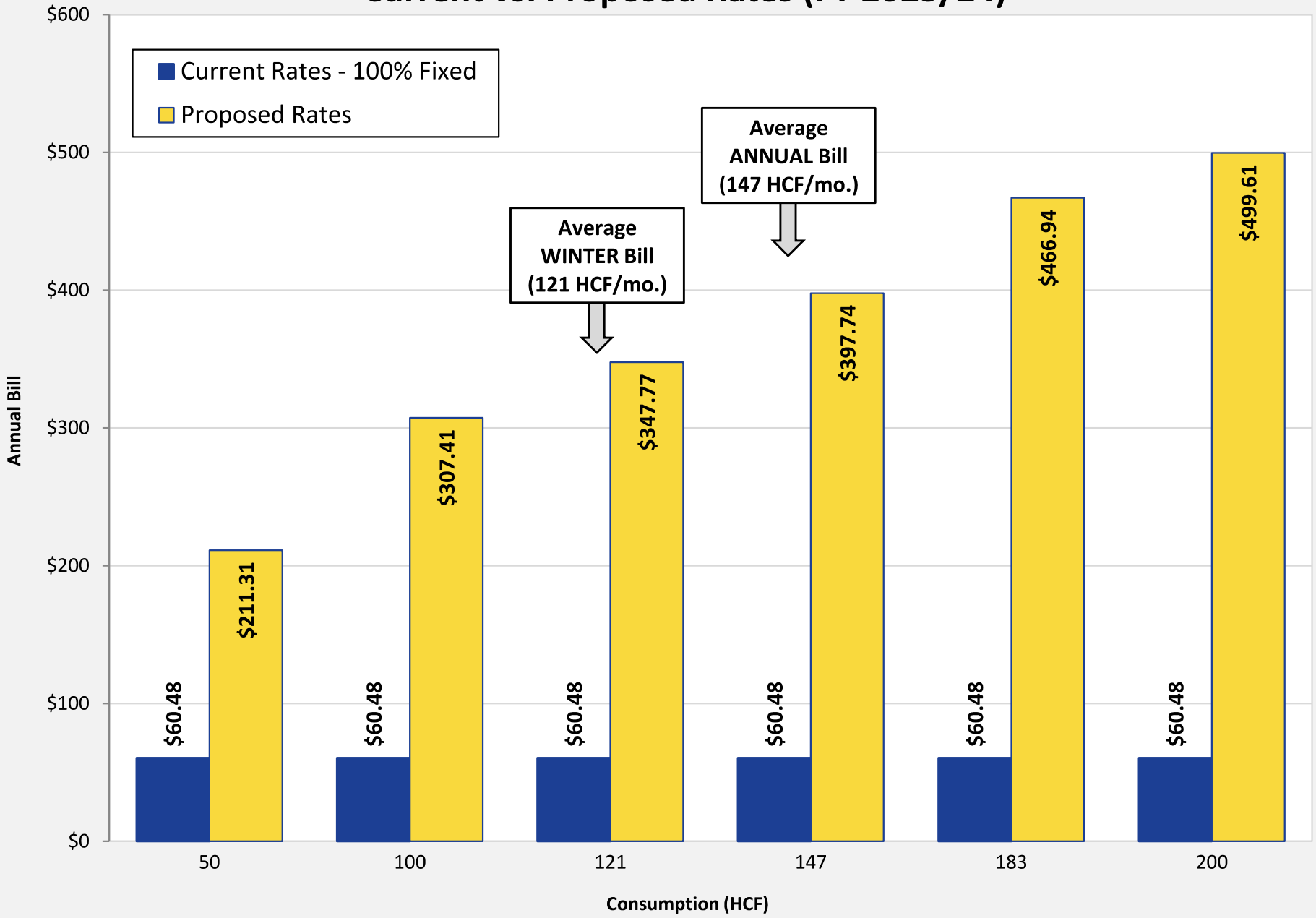


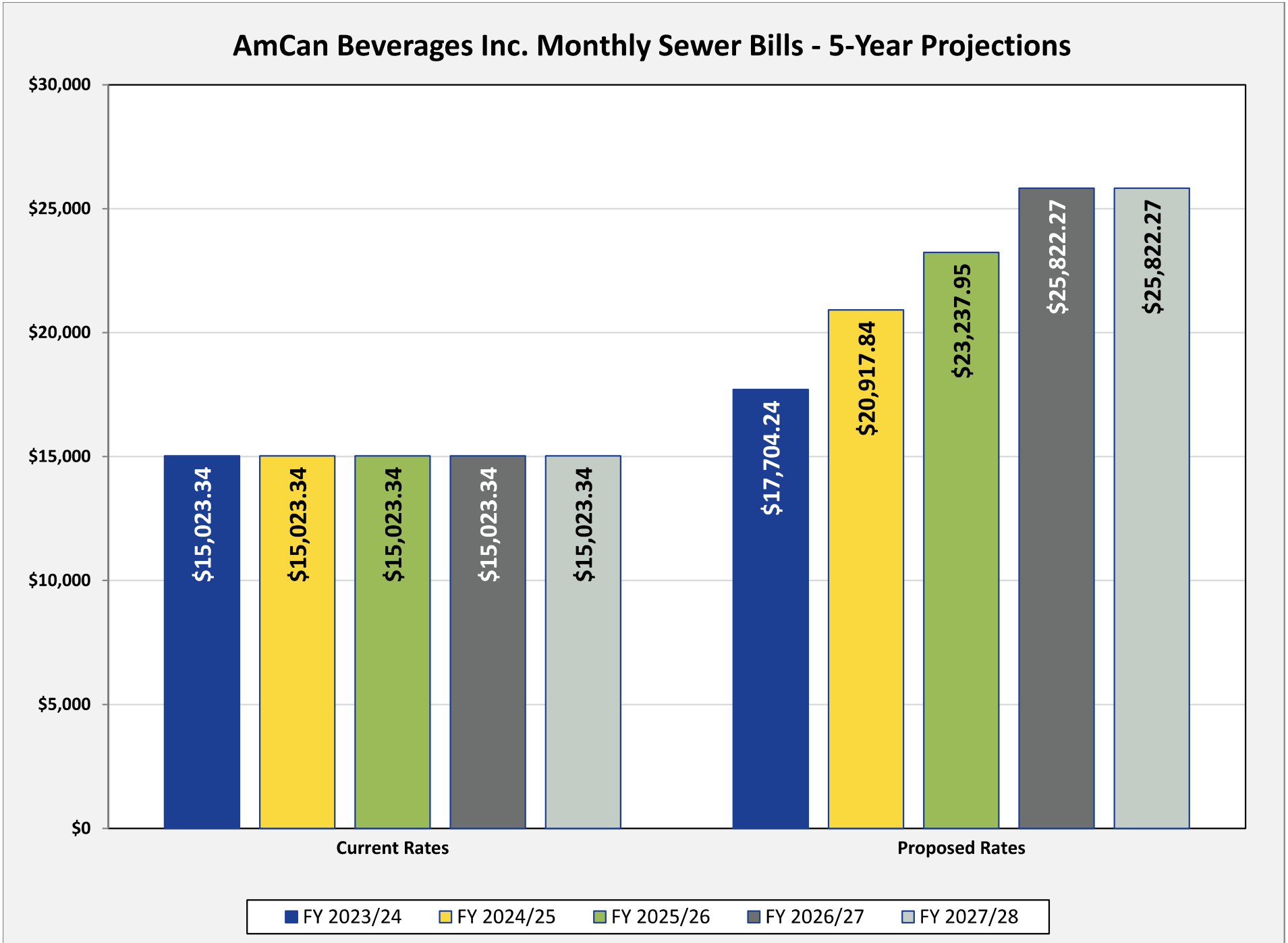

Single Family Residential Monthly Sewer Bills - 5-Year Projections
$120
$110
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
$60.48
$60.48
$60.48
$60.48
$60.48
$74.94
$89.93
$100.72
$112.81
$112.81
Current Rates
Proposed Rates
FY 2023/24
FY 2024/25
FY 2025/26
FY 2026/27
FY 2027/28


Multi-Family Residential Monthly Sewer Bills - 5-Year Projections
$80
$70
$60
$50
$40
$30
$20
$10
$0
$45.36
$45.36
$45.36
$45.36
$45.36
$48.70
$58.44
$65.45
$73.31
$73.31
Current Rates
Proposed Rates
FY 2023/24
FY 2024/25
FY 2025/26
FY 2026/27
FY 2027/28

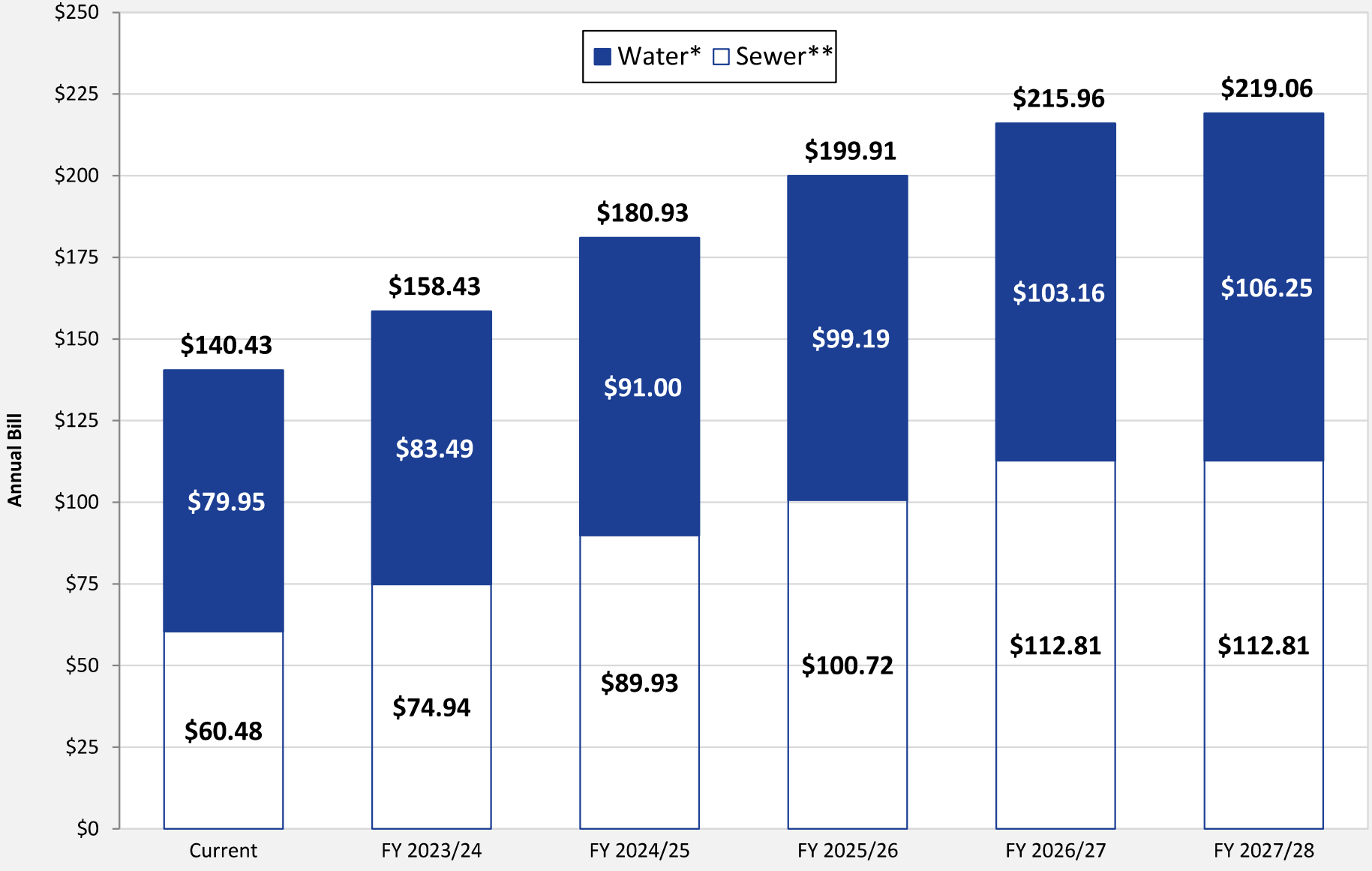

Commercial Monthly Sewer Bills - 5-Year Projections
$275
$250
$225
$200
$175
$150
$125
$100
$75
$50
$25
$0
$60.48
$60.48
$60.48
$60.48
$60.48
$138.75
$166.50
$186.48
$208.86
$208.86
Current Rates - 100% Fixed
Proposed Rates
Note: Commercial customer bills are based on average annual consumption of 147 HCF per month.
FY 2023/24
FY 2024/25
FY 2025/26
FY 2026/27
FY 2027/28

Commercial Sewer Bill Comparison
Current vs. Proposed Rates (FY 2023/24)




AmCan Beverages Inc. Monthly Sewer Bills - 5-Year Projections
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
$15,023.34
$15,023.34
$15,023.34
$15,023.34
$15,023.34
$17,704.24
$20,917.84
$23,237.95
$25,822.27
$25,822.27
Current Rates
Proposed Rates
FY 2023/24
FY 2024/25
FY 2025/26
FY 2026/27
FY 2027/28

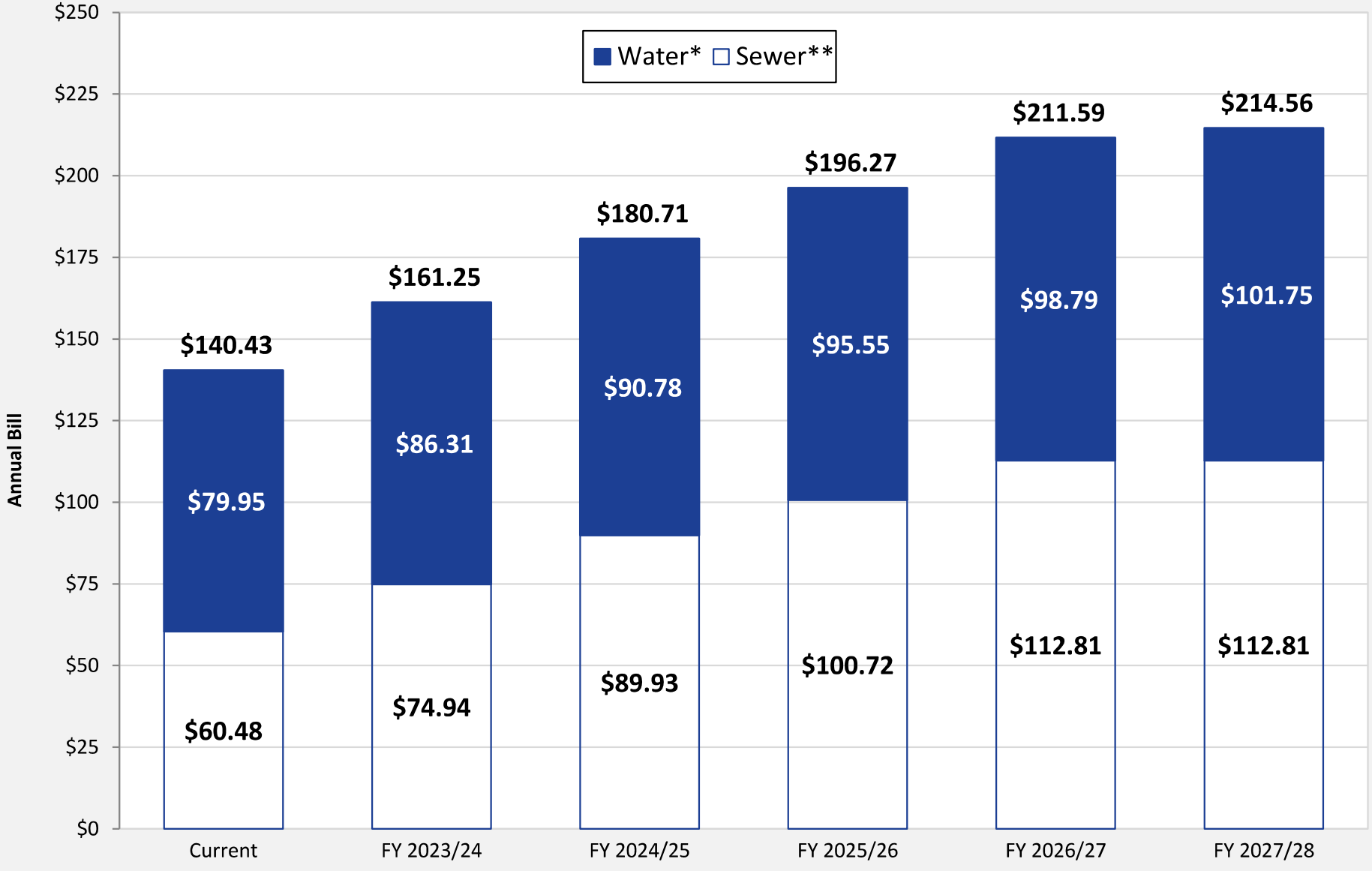
Single Family Residential Utility Bill



** Water bill is calculated using a 1" Meter and monthly winter water use of 7 HCF (Alternative 1).*

*** Sewer bill is based on COSA - 55% Fixed / 45% Variable.*

Single Family Residential Utility Bill



** Water bill is calculated using a 1" Meter and monthly winter water use of 7 HCF (Alternative 2).*

*** Sewer bill is based on COSA - 55% Fixed / 45% Variable.*

TITLE
Sites Reservoir Project

RECOMMENDATION
Receive financing information on the Sites Reservoir Project

CONTACT
Phil Brun, Management Aide/Special Projects (Retired Annuitant)

BACKGROUND & ANALYSIS
The Sites Reservoir Project (formerly the North of Delta "Off Stream" Project) has been studied by both the California of Water Resources (DWR) and the Federal Bureau of Reclamation (Bureau) since the 1970's, although neither agency pursued it beyond the conceptual stage. In 2010, a consortium of local agencies renewed interested in the Project. The group formed the Sites Reservoir Joint Powers Authority (Sites JPA) and it is now the lead agency pursuing the Project.

The project will result in a new surface water storage reservoir located 70 miles northwest of Sacramento, CA (near the town of Maxwell). It's worth noting the term "Off Stream" in the Project's former name, which identifies that it will be located off of a stream. This means the Project will not dam the Sacramento River (or any of its tributaries). The Project stands in contrast to many existing reservoirs which were built by damming naturally flowing rivers without a full understanding of the long-term consequences to the environment. It is unique in this regard because it will provide dramatic benefits to the ecosystem while simultaneously providing a new source of water for American Canyon.

The project is contemplated to impound up to 1,500,000 acre-feet (AF) of water behind a new dam located 15 miles west of the Sacramento River. By way of reference, the new reservoir will be slightly smaller than Lake Berryessa. The water will be transported to the reservoir via existing irrigation canals and new pipelines. Water will be diverted from the River at existing diversion points during winter months when flows are high. Based on historical records, the reservoir would be able to be filled even during drought years because it will take advantage of the peak flows that still occur each season. The project is also envisioned to have hydroelectric capabilities and will create new recreational areas.

While water will be diverted into the reservoir during high winter flows, it will be released from the reservoir for use throughout the remainder of the year. The water would be returned to the Sacramento River where it will eventually find its way to the Northbay Aqueduct (NBA) and then it will be pumped to the City's Water Treatment Plant. Although the details are still to be worked out, Sites Water is likely to be considered "non-Project" water by DWR (although this is still under discussion) and will be transmitted through the NBA in the same manner as other "non-Project" water such as "Vallejo Permit Water".

Based on modeling scenarios, it is anticipated that an annual average of 300,000 AF of water would be diverted for storage in Sites Reservoir. Water released from the reservoir will be used for both municipal and agricultural purposes (by water purveyors such as the City) and for environmental uses in the Sacramento River/San Joaquin River Delta (by DWR and others). The environmental uses primarily pertain to increasing the amount of cold water storage available at Lake Oroville. In effect, DWR will store water for the State Water Project (SWP) in the Sites Reservoir instead of Lake Oroville. The result will be increased availability of cold water for release into the Sacramento River at strategic times beneficial to special status species such as winter-run Chinook salmon. DWR will also release water from Lake Oroville at other strategic times to help maintain Delta water quality and environmental standards. It is these environmental benefits that help make the Project competitive for Proposition 1 funding.

The Sites Project is designed to take advantage of high flows that occur each year. The City's current participation level in the project is 4,000 AF, which is the average annual yield or delivery of water. Based on modeling, 4,000 AF is available in 68% of the years. This level of participation provides the City with 24,936 AF of allocated storage in the reservoir. This allows the City to manage water releases from storage based on need and storage levels similar to having a local reservoir.

It is important to consider Sites Water will still be conveyed through the NBA and the City's use of this pipeline is constrained by limitations on pipeline capacity and seasonal environmental restrictions at the Barker Slough Pumping Plant. The NBA pipeline constraints consist of the pipeline being too small for future demand and an organic biofilm that has developed that constricts the flow capacity. There are also pumping restrictions at specific times of the year which limit the delivery of water due to endangered species concerns. The investigation of the Alternate Intake Project (AIP) is an effort to reduce or eliminate these constraints. Also, the unit cost for Sites Reservoir does not include any costs for any future upgrades or improvements to the NBA, such as the AIP.

Construction costs for the project are estimated at $7.5B in 2024 dollars. Estimated State and Federal upfront contribution of $2.5B leaves $5.0B to be financed by Sites participants. Given that the project will be constructed over a 7-to-8-year period, inflation is expected to make the actual financed amount be $6.9B. The City's share of this total cost is $177M. The City's estimated annual cost would be $13M to cover construction financing and O&M. These payments would start in FY2033 due to capitalized interest through the construction period. The Water Fund will need to increase revenue to take on these new costs. Revenue can be derived from a variety of sources

including water sales to current and new customers, sales of excess NBA water, sales of Sites water once it is available, and capacity fees. Managing the expense budget and contributions towards annual CIP also frees up revenue that can be applied to the new expense.

Project Governance

The Project is governed by the Sites JPA and its select group of members are all within the Sacramento Valley. The City is a member of the broader "Reservoir Committee," which is made up of all of those agencies that anticipate taking water. There are also representatives from DWR and USBR on the Reservoir Committee. A reasonable comparison is the JPA members are the "Board." and consist of elected officials of those local agencies while the Reservoir Committee is like a Technical Advisory Committee made up of General Managers, PW Directors, etc.

Next Steps

2026 promises to be a momentous year for the Sites Project with many important decisions and milestones expected. If all goes as planned, groundbreaking by the end of the year could occur. The staff presentation tonight will provide additional information and next steps.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Infrastructure: "Develop and maintain infrastructure resources to support sustainable growth."

FISCAL IMPACT

Tonight's item is informational only. NoCouncil action is requested, and there is no financial impact.

ENVIRONMENTAL REVIEW

The Sites Reservoir Project CEQA determination was finalized on November 17, 2023, when the Sites Project Authority certified the Final Environmental Impact Report (EIR) and filed its Notice of Determination under State Clearinghouse number 2001112009.

COMMUNICATION

Level 3: Broad Communication

Level 3: Broad Communication

Staff will continue to share information about the Sites Project in the next three months as important milestones unfold.

ATTACHMENTS:

1. Sites Council Presentation

CITY OF AMERICAN CANYON

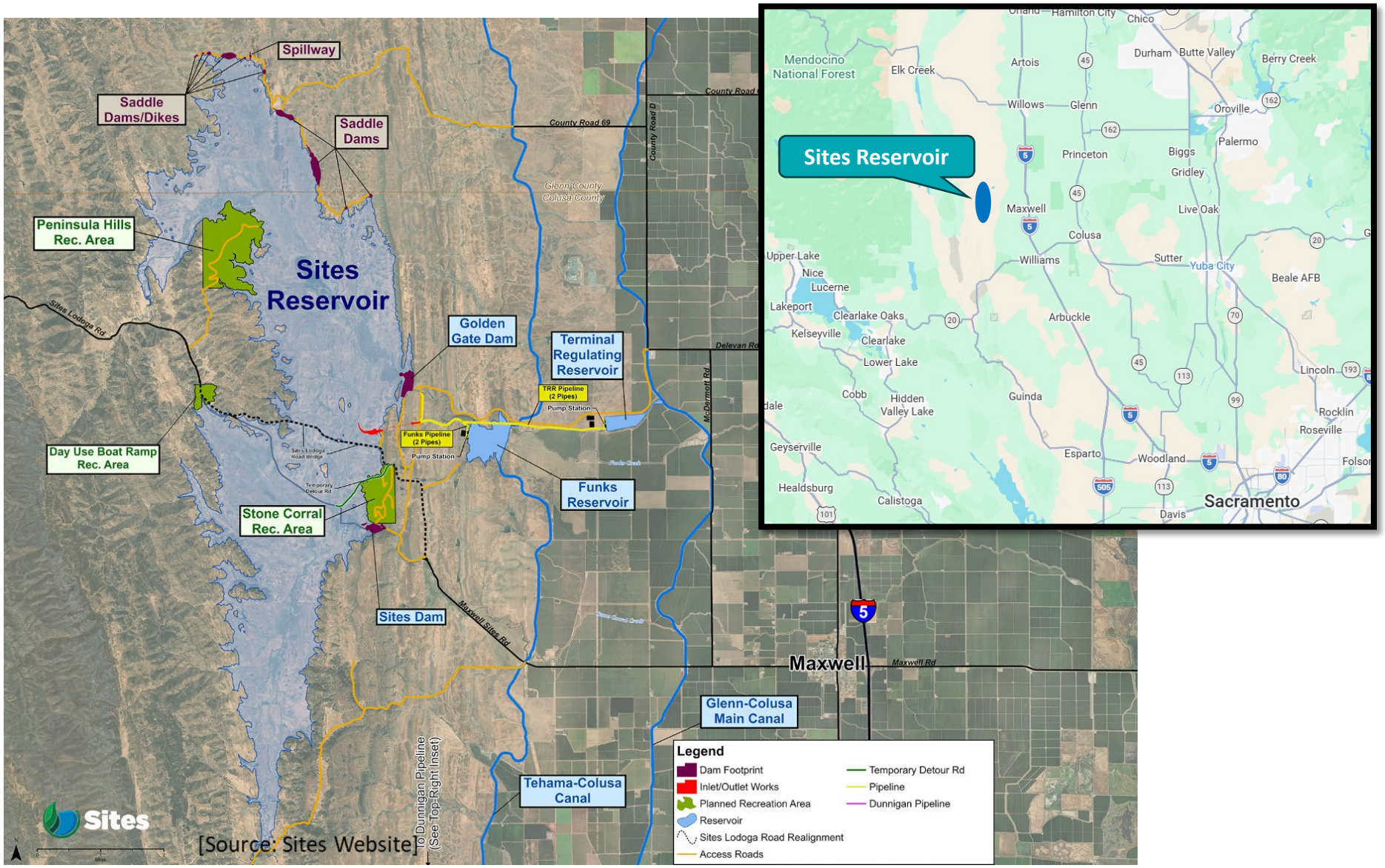
Sites Reservoir Project Financing

August 18, 2026

Sites Reservoir – VISION



Sites Reservoir - BACKGROUND



Sites Reservoir - BACKGROUND



Sites Reservoir - BACKGROUND

- 1.5 million acre-feet (Berryessa is 1.6 million acre-feet)
- Average annual diversion = 300,000 acre-feet
- Current Project Cost Estimate = $7.5B (2024$)
- Escalated Cost = $9.4B due to inflation over 8 years of construction
- 30 participating agencies across northern and southern California
- CEQA/NEPA Done
- Final Water Right on November 3
- Investor Commitment Period ends December 2026
- Groundbreaking in January 2027
- Reservoir operational in 2034

[Source: Sites Website]

Sites Reservoir - BACKGROUND

- February 2017: Council authorized participation for 4,000 AF yield
- American Canyon investment to date = $3.6M
- American Canyon Storage Capacity = 25,000 AF
  - 1.8% of total Sites Project
  - Lake Hennessey (Napa) = 31,000 AF
  - Bell Canyon (St. Helena) = 2,400 AF
- Delivery through DWR SWP (North Bay Aqueduct)
- Available for use in all of Napa and Solano Counties

Sites Reservoir – WATER SUPPLY

- Historic/unprecedented opportunity to diversify water supply portfolio
- State Water Project (SWP) supplies increasingly unreliable
- Urban Water Management Plan (UMP) shows stable water supply
  - Relies upon a single source – Vallejo – during drought
- Stable water supply benefits the community and future economic development
- Long-term water supply options studied
  - Sites chosen as the best option

Sites Reservoir "Bathtub Model"

INFLOW
(High Flow Events on Sacramento River)

Precipitation

Surface Water

Flood Protection Benefits

Recreation Benefits

Use, Sell, or Store for Drought

Diversions Using Existing Systems

Storage

Deliveries Using Existing System

OUTFLOWS
(Deliveries)

Residential Use

Commercial / Industrial Use

Agriculture / Irrigation

Environmental Flows

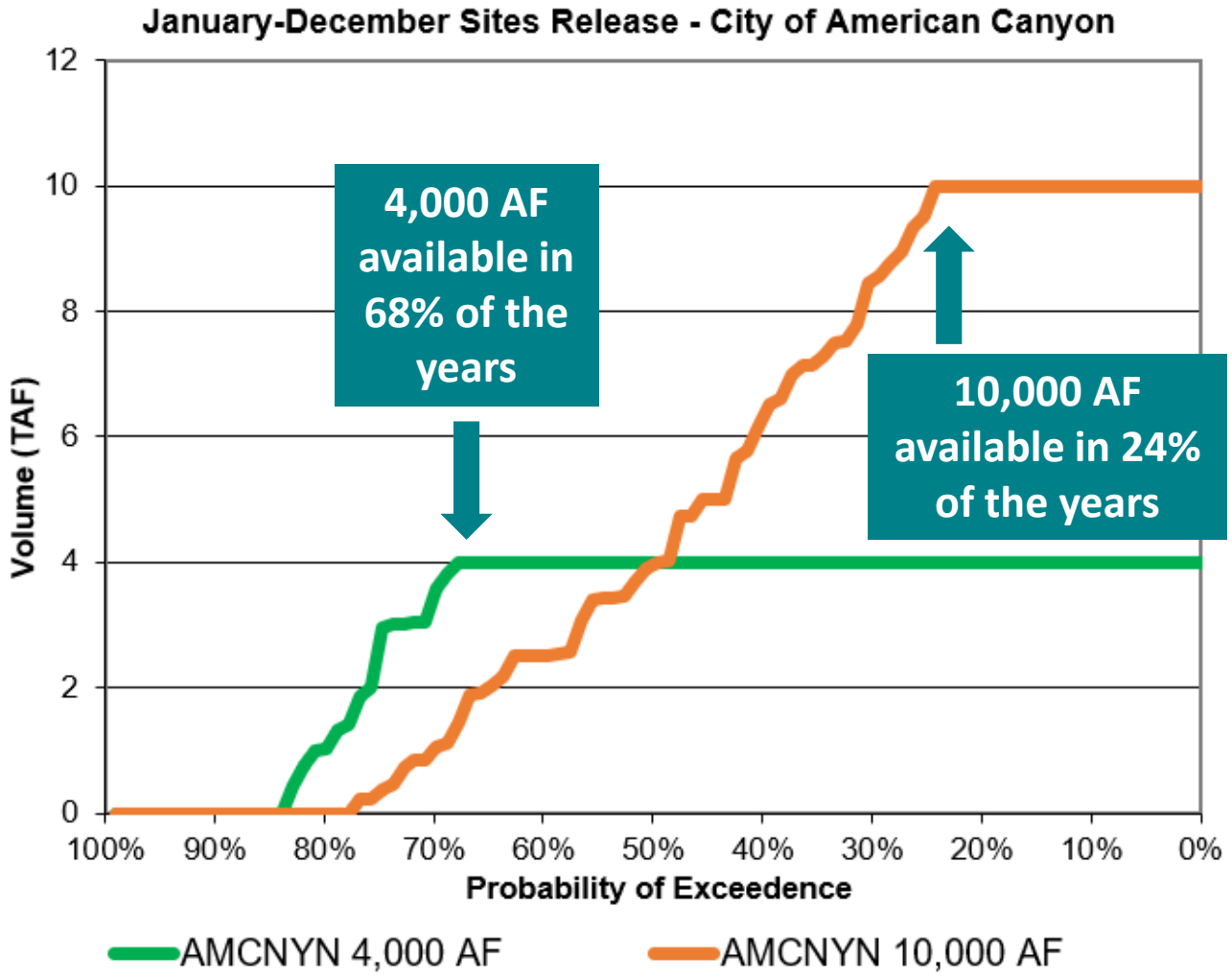
Evaporation

System Losses

THE BATHTUB REPRESENTS
The level of water in the tub represents the available water supply / storage.

BALANCE IS KEY
Sustainable water management means inflows are greater than or equal to outflows over time.

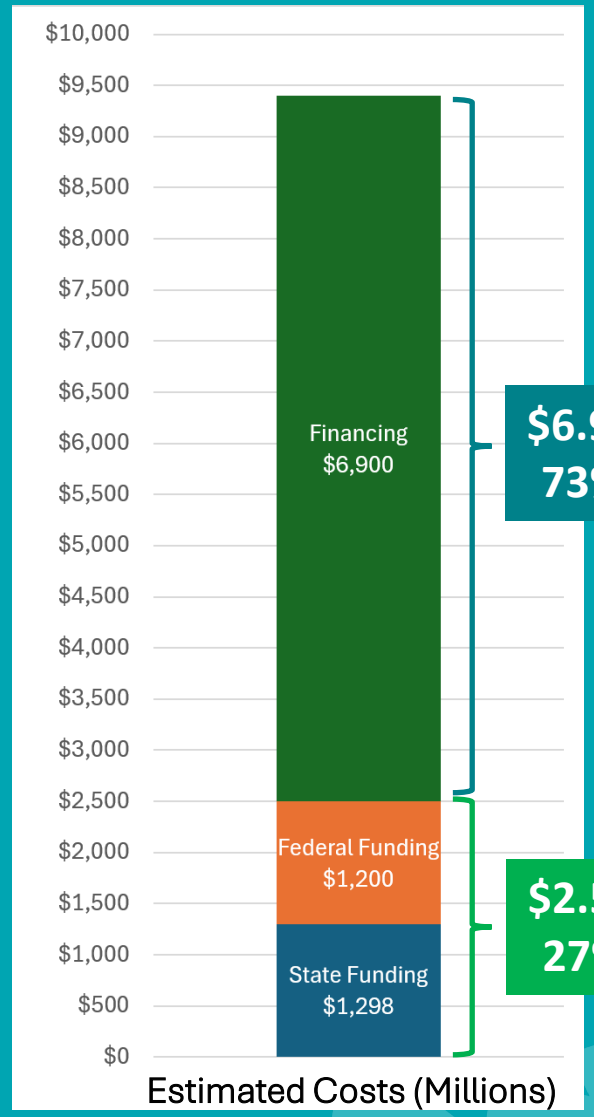
Sites Reservoir – WATER SUPPLY



[Source: Sites Authority]

Sites Reservoir – COST OVERVIEW

- Estimated Costs (2034) = $9.4B
- Federal and State "Day 1" Contributions = $2.5B
- All Other Participants Financing = $6.9B
- American Canyon share of Financing = $177M
  - 40-yr (2033-2072) cost = $436M ($10.8M/yr)
- O&M and R&R costs still being developed
- Useful life at least 200 years



Sites Reservoir – FINANCING

NEW EXPENSE

$10.8 million in Debt Service starts in FY2033 due to capitalized interest through construction

REVENUE INCREASE NEEDED

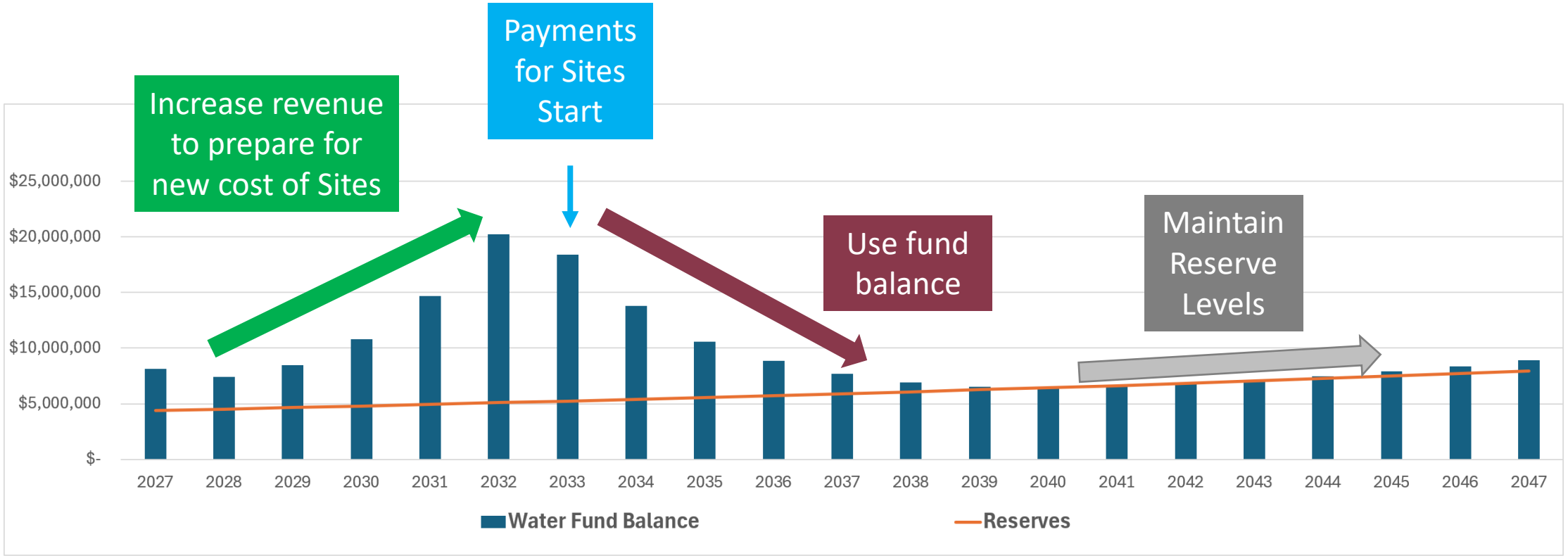
- ❑ Water Sales (Production)
  - Existing Customers
  - New Customers
- ❑ Other Non-Customer Revenue
  - Developer Fees
  - Reduce Capital Project costs
  - Selling excess SWP Water
  - Selling excess Sites Water (after 2034)

Sites Reservoir – FINANCING

MODELING FOR REVENUE INCREASE

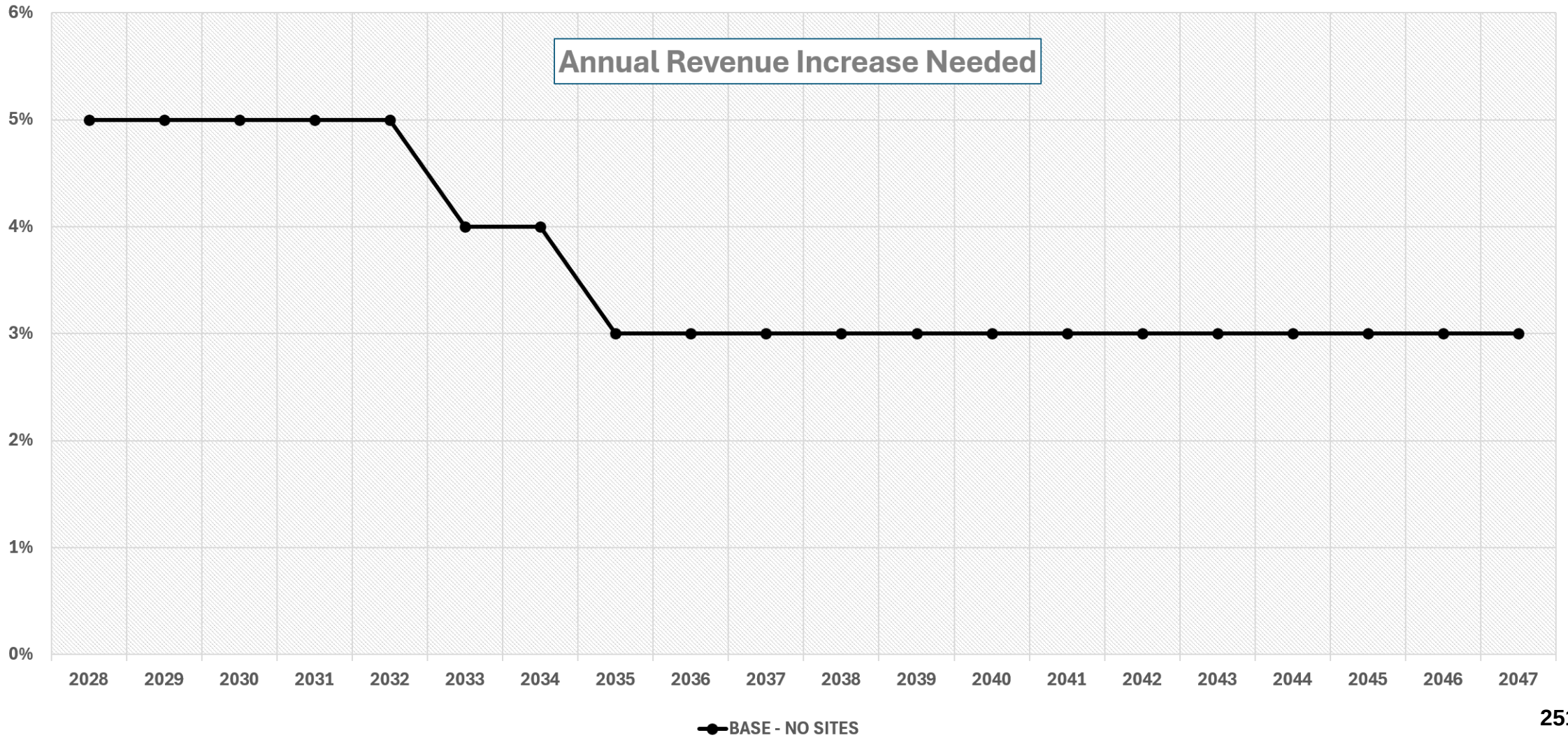
- Looked forward 20 years
- FY2027 Budget is base for O&M expenses
- Rate Funded CIP is $1.5M in FY2028
- Reserve Levels per last Rate Study
- Inflation Factors (annual)
  - Expenses = 3%
  - Water Purchases = 5%
  - Reserves = 3%
  - Water Sales = 0.54% (matches UWMP)
- Water Fund Balance = $10.6M as of June 30, 2025

Sites Reservoir – FINANCING



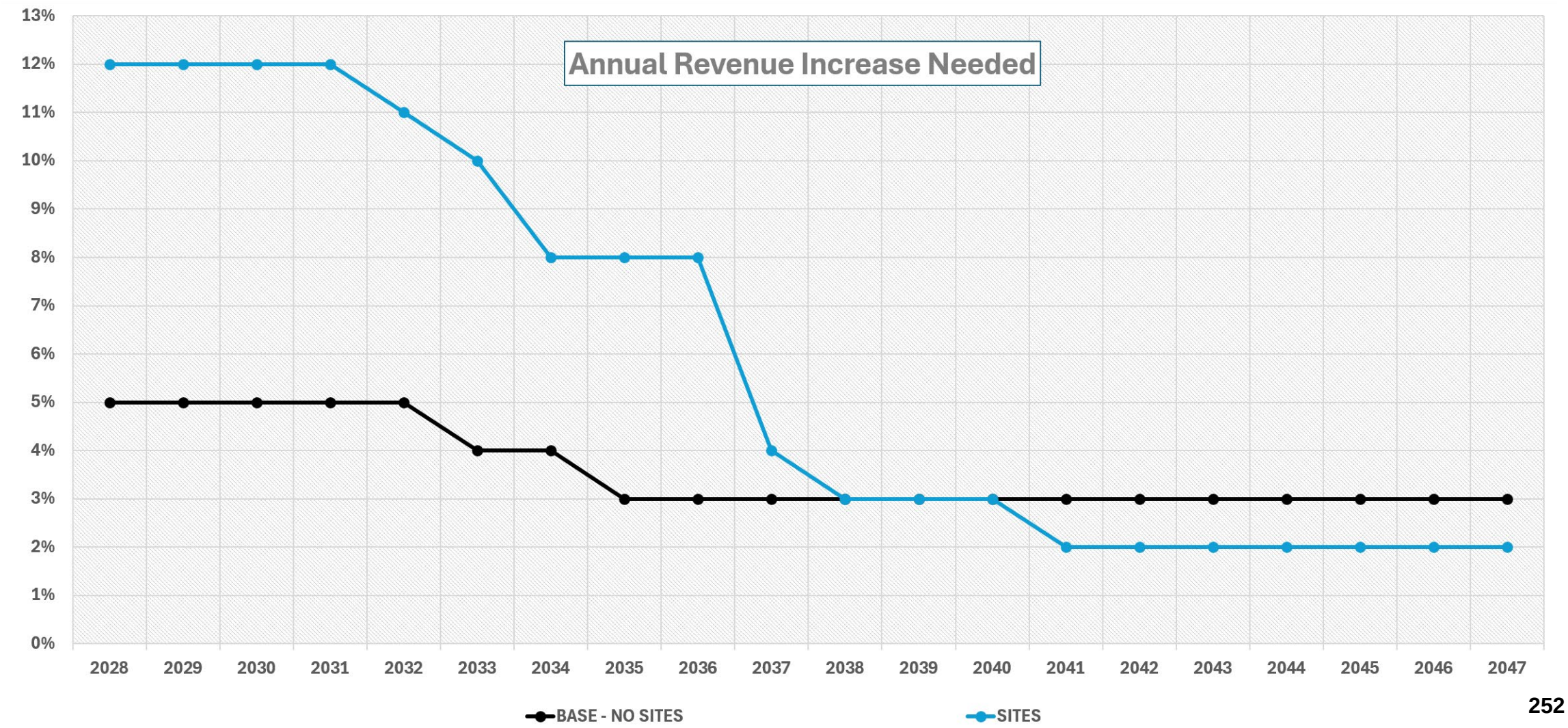
Sites Reservoir – FINANCING

Baseline (No Sites)



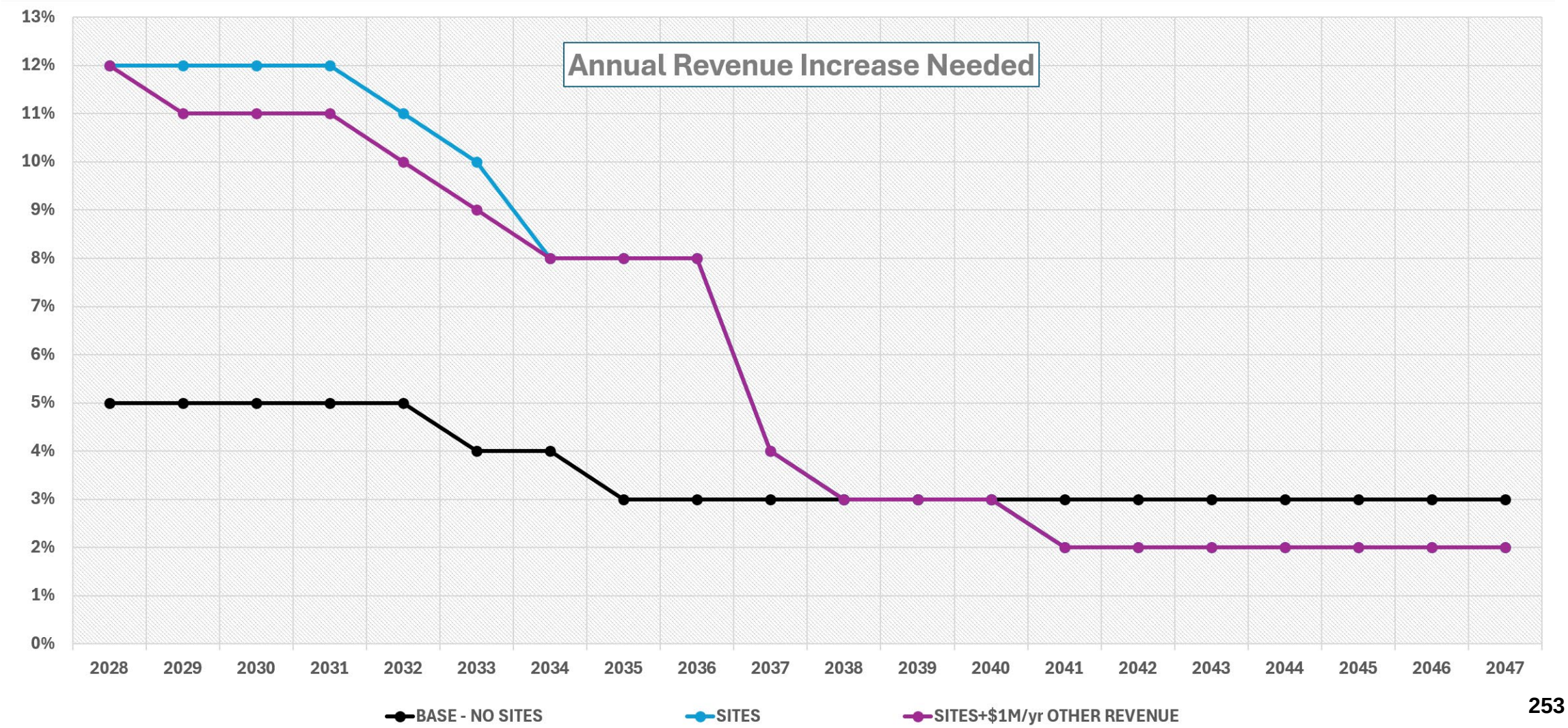
Sites Reservoir – FINANCING

SITES @ 4,000 AF



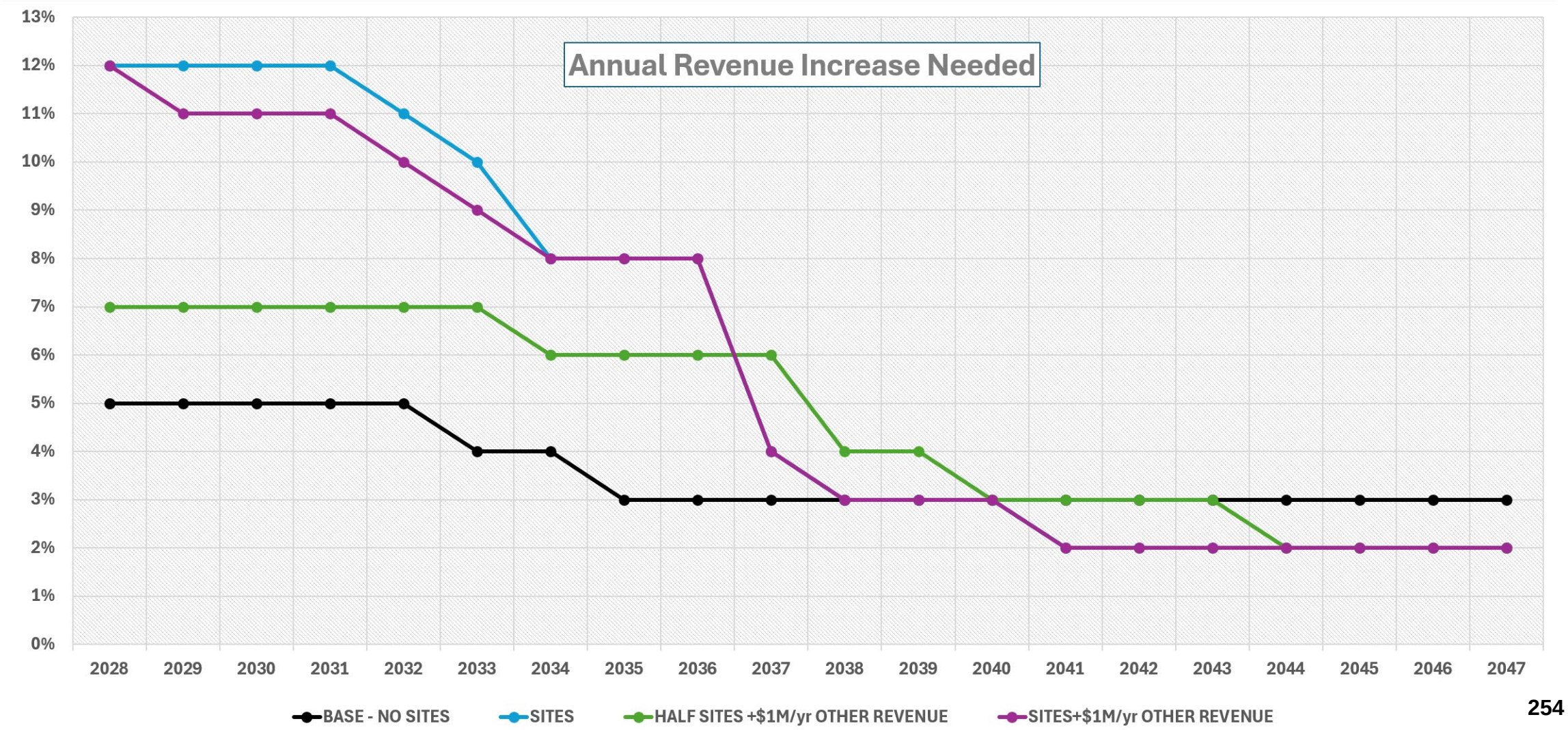
Sites Reservoir – FINANCING

4,000 AF + $1M/yr Offset by Other Revenue



Sites Reservoir – FINANCING

2,000 AF + $1M/yr Offset by Other Revenue



Sites Reservoir – NEXT STEPS

September 2026

- Program Baseline Report and Resolution to Offer Capacity
- 4,000 AF or 2,000 AF?

End of 2026

- Council approval of Benefits and Obligations Agreement

Early 2027

- Groundbreaking

Additional Community Outreach Needed?

CITY OF AMERICAN CANYON

Questions/Discussion

TITLE

2025 Urban Water Management Plan Update

RECOMMENDATION

Review and comment on the Draft 2025 Urban Water Management Plan.

CONTACT

Erica Ahmann Smithies, P.E., Public Works Director
Norman Woods, Assistant Public Works Director
Dominic Patrick, Water Systems Manager

BACKGROUND & ANALYSIS

The California Urban Water Management Planning Act (Water Code Section 10610 et seq.) requires urban water suppliers that provide water for municipal purposes to more than 3,000 customers or supply more than 3,000 acre-feet of water annually to prepare and adopt an Urban Water Management Plan (UWMP) every five years. As an urban water supplier under the Act, the City of American Canyon is required to update its UWMP to maintain compliance with state law and support long-term water resource planning.

The City adopted its previous UWMP in 2020 and submitted it to the California Department of Water Resources (DWR) on January 18, 2023. The Draft 2025 UWMP (Attachment 1) updates the City's long-range water supply and demand projections, water reliability assessment, water shortage contingency planning, and water conservation strategies in accordance with current statutory requirements, including the Urban Water Management Planning Act and the Water Conservation Act of 2009.

The Draft 2025 UWMP was prepared by City staff with assistance from qualified water resources consultants and in coordination with regional and state agencies. Preparation of the plan followed applicable state requirements and utilized the California Department of Water Resources' 2025 Urban Water Management Plans Guidebook for Urban Water Suppliers (January 2026).

The updated plan reflects current water supply conditions, demand forecasts, population and land use projections, and water conservation requirements. The UWMP also incorporates updated technical analyses and planning assumptions since the 2020 UWMP to ensure the City's water

management strategies remain consistent with current regulations, available data, and long-term reliability objectives. Overall, the 2025 UWMP confirms the City's continued commitment to providing a reliable and sustainable water supply while meeting state planning and conservation requirements.

State law requires public review and opportunities for community participation before adoption of the UWMP. Consistent with Water Code Sections 10608.26 and 10642 and Government Code Section 6066, the City made the Draft 2025 UWMP available for public inspection and published notices of the public hearing which will occur on September 15, 2026. The public review process encouraged participation from residents, businesses, public agencies, and stakeholders representing the diverse social, cultural, and economic interests within the City's service area. The City also invited public comment on the proposed plan, including the City's approach to complying with the Water Conservation Act of 2009 and the potential economic impacts associated with its implementation.

Following review of the Draft 2025 UWMP, the administrative record, and all public and agency comments received, staff recommends that the City Council adopt the 2025 Urban Water Management Plan. Adoption of the plan satisfies the City's statutory obligations under state law and provides an dated framework for managing the City's water resources over the next five-year planning.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Infrastructure: "Develop and maintain infrastructure resources to support sustainable growth."

FISCAL IMPACT

N/A

ENVIRONMENTAL REVIEW

15378(b) - The action is not a "Project" subject to the California Environmental Quality Act ("CEQA") because it does not qualify as a "Project" under Public Resources Code Sections 21065 and 21080 and in Section 15378(b) of Title 14 of the California Code of Regulations.

COMMUNICATION

Level 0: No Further Public Communication Needed

ATTACHMENTS:

1. 2025 UWMP Administrative Draft



PREPARED FOR THE
CITY OF AMERICAN CANYON







2025
URBAN WATER MANAGEMENT PLAN

ADMINISTRATIVE DRAFT / JUNE 2026

carollo®

City of American Canyon

2025 Urban Water Management Plan

CONTACT SHEET

Date plan submitted to the Department of Water Resources: XX/XX/XXXX

Name of persons preparing this plan:

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Phone: (707) 980-3304

Email: nwoods@americancanyon.gov

Brianna Barton, Project Manager

Carollo Engineers, Inc.

2520 Venture Oaks Way, Suite 400

Sacramento, CA 95833

Phone: (916) 576-4753

Email: blbarton@carollo.com

The Water supplier is a: **City.**

The Water supplier is a: **Retailer.**

Utility services provided by the water supplier include: **Water, Wastewater.**

2025 Urban Water Management Plan

June 2026 / ADMINISTRATIVE DRAFT

This document is released for the purpose of information exchange review and planning only under the authority of Brianna Barton, June 3, 2026, California C - 86633.

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Abbreviations

AB	Assembly Bill
AF	acre-feet
AFY	acre-feet per year
ADU	accessory dwelling unit
AMI	Advanced Metering Infrastructure
AWWA	American Water Works Association
BMP	best management practice
BSPP	Barker Slough Pumping Plant
Carollo	Carollo Engineers, Inc.
CII	commercial, industrial, and institutional
CIMIS	California Irrigation Management Information System
City	City of American Canyon
CREAT	Climate Resilience Evaluation and Awareness Tool
CWC	California Water Code
DDW	Division of Drinking Water
Delta	Sacramento-San Joaquin Delta
DIM	dedicated irrigation meter
DOF	California Department of Finance
DOI	United States Department of Interior
DMM	demand management measure
DRA	drought risk assessment
DWR	California Department of Water Resources
EPA	United States Environmental Protection Agency
ERP	emergency response plan
ETo	evapotranspiration
ETSSA	Extra Territorial Sewer Service Area
F	degrees Fahrenheit
FCWCD	Flood Control and Water Conservation District
GHG	greenhouse gas
gpad	gallons per acre per day
gpcd	gallons per capita per day
GPSCD	gallons per service connection per day
IRWMP	Integrated Regional Water Management Plan
ITP	Incidental Take Permit

kWh	kilowatt hours
MFR	multi-family residential
MG	million gallons
mgd	million gallons per day
MWELO	Model Water Efficient Landscape Ordinance
NA	not applicable
NBA	North Bay Aqueduct
No.	number
NSD	Napa Sanitation District
PVC	polyvinyl chloride
RCP	Representative Concentration Pathway
RHNA	Regional Housing Needs Assessment
RUWMP	Regional Urban Water Management Plan
SacWAM	Sacramento Water Allocation Model
SB	Senate Bill
sf	square foot
SFR	single-family residential
SWP	State Water Project
SWRCB	State Water Resources Control Board
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
UWUO	urban water use objective
WDR	waste discharge requirements
WRF	Water Reclamation Facility
WRF	Water Recycling Facility
WSCP	Water Shortage Contingency Plan
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant
ZWF	zero water footprint

CHAPTER 1 INTRODUCTION AND LAY DESCRIPTION

1.1 Lay Description

The City of American Canyon (City) is located at the southern end of Napa County, just north of Solano County and the City of Vallejo. The City is located approximately 45 miles west of Sacramento along Interstate I-80 and is approximately 5.5 square miles in size. American Canyon incorporated in 1992 from Napa County. Since its incorporation, the City has increased residential development and added a large amount of business and commercial expansion along the Highway 29 corridor and south of Napa Airport.

The City's potable water service area is approximately 11 square miles and encompasses the City limits and its sphere of influence and extends from the Napa River to the west to the Napa/Solano County line to the east and from the Napa/Solano County line to the south to Soscol Ridge north of the airport.

The City potable water supply is purchased or imported water sources, mainly State Water Project (SWP) water purchased from the Napa County Flood Control and Water Conservation District (FCWCD) and the City of Vallejo. The City owns, maintains, and operates the Water Treatment Plant (WTP) which has a maximum capacity of 5 million gallons per day (mgd) with an average daily demand of approximately 3 mgd. Treated water is delivered by gravity to the 2.5 million gallon (MG) water storage tank located at the WTP and flows from the tank to the distribution system. The potable water distribution system consists of approximately 102 miles of water mains, three storage tanks, and two booster pump stations.

In 2025, the average annual population was estimated to be 22,854. The population is anticipated to increase to 26,730 by the year 2050.

Water demands served by the City are primarily residential, including single-family residential (SFR) and multi-family residential (MFR), commercial, industrial, and institutional (CII), and landscape irrigation. All connections in the City are metered. The total demand (potable and non-potable) in 2025 was approximately 2,235 acre feet (AF). Residential demands account for 1,324 AF (59 percent) of the total demand, while CII demands account for 622 AF (28 percent), and landscape irrigation demands account for 109 AF (5 percent). Raw water for agricultural irrigation was 28 AF (1 percent). The remaining balance is attributed to hydrant flushing (9 AF), other uses (private fire protection services, temporary watering of construction sites) at 41 AF (2 percent) and water loss of 102 AF (5 percent). Demands are anticipated to be 2,647 AF by the year 2050.

The City met the 2020 target (162 gallons per capita per day [gpcd]) in the year 2020 (116 gpcd) and in the year 2025 (87 gpcd). The City will implement conservation measures, as needed, to comply with the State Water Board's *Making Conservation a California Way of Life* regulation (compliance effective January 1, 2027). In all of its conservation programs, the City will avoid placing a disproportionate burden on any customer sector.

Supply availability was reviewed under a single-dry-year and a five-consecutive-year drought, in addition to a drought risk assessment (DRA) from 2026 through 2030. The City anticipates it can supply all its water demands by purchasing supplemental imported water through existing agreements through the planning horizon (2050) for all water year scenarios.

The City Water Conservation Plan Chapter 13.14 meets all requirements set forth by Department of Water Resources (DWR) for drought planning, including six supply shortage stages, response actions for demand reduction, supply augmentation, operational changes, and mandatory prohibitions to address shortage levels.

1.2 Background and Purpose

The California Water Code (CWC) requires urban water suppliers within the state to prepare and adopt an Urban Water Management Plan (UWMP) for submission to the DWR. The UWMP, filed every five years, must satisfy the requirements of the Urban Water Management Planning Act (UWMPA) of 1983, including amendments that have been made to the Act. The UWMPA requires urban water suppliers servicing 3,000 or more connections, or supplying more than 3,000 AF of water annually, to prepare a UWMP.

The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a mechanism for response during water drought conditions. This document, which was prepared in compliance with the CWC, and as set forth in the 2025 Urban Water Management Plan Guidebook for Urban Water Suppliers (January 2026) established by the DWR, constitutes the City 2025 UWMP.

This 2025 UWMP was prepared in compliance with the UWMPA (CWC §10610-10656 and §10608 et seq.) and the Water Conservation Bill of 2009 (Senate Bill [SB] X7-7) by Carollo Engineers, Inc. (Carollo). Contact information for the City and Carollo is included in the Contact Sheet provided at the beginning of this document.

The City recognizes the importance of maintaining a high-quality reliable water supply and although water is a renewable resource, it is limited. A long-term reliable supply of water is essential to protect the local and state economy. The primary focus for the City is to provide high quality water, maximize the efficient use of water, and promote conservation.

1.2.1 Previous Urban Water Management Plan

The City previously prepared an UWMP in 2020, which was approved and adopted on September 6, 2022 (Resolution 2022-85). Following adoption, the 2020 UWMP was submitted to and formally approved by the DWR. The 2025 UWMP report serves as an update to the 2020 UWMP and pulls extensively from that report.

1.3 Urban Water Management Planning Act and the California Water Code

In 1983, State Assembly Bill (AB) 797 modified the CWC Division 6 by creating the UWMPA. Several amendments to the original UWMPA, which were introduced since 1983, have increased the data requirements and planning elements to be included in the UWMPs.

Initial amendments to the UWMPA required that total projected water use be compared to water supply sources over the next 20 years, in 5-year increments. DWR guidelines also suggest projecting through a 25-year planning horizon to maintain a 20-year timeframe until the next UWMP update has been completed.

Other amendments require that UWMPs include provisions for recycled water use, demand management measures (DMMs), and a Water Shortage Contingency Plan (WSCP). Recycled water was added in the reporting requirements for water usage and figures prominently in the requirements for evaluation of alternative water supplies, when future projections predict the need for additional water supplies. Each urban water purveyor must coordinate the preparation of the WSCP with other urban water purveyors in the area, to the extent practicable. Water suppliers must also describe their water DMMs that are being implemented or are scheduled for implementation.

In addition to the UWMPA and its amendments, there are several other regulations that are related to the content of the UWMP. In summary, the key relevant regulations are:

- AB 1420: Requires implementation of DMMs/best management practices (BMPs) and meeting the 20-by-2020 targets to qualify for water management grants or loans.
- AB 1420: Requires a plan to quantify and report on distribution system water loss.
- AB 1420: Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when that information is available and applicable to an urban water supplier.
- AB 1465: Requires water suppliers to describe opportunities related to recycled water use and stormwater recapture to offset potable water use.
- Amendments SB 610 (Costa, 2001) and AB 901 (Daucher, 2001): Require counties and cities to consider information relating to the availability of water to supply new large developments by mandating the preparation of further water supply planning (Daucher) and Water Supply Assessments (Costa).
- SB 1087: Requires water suppliers to report SFR and MFR projected water use for lower income areas separately.
- Amendment SB 318 (Alpert, 2004): Requires the UWMP to describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as long-term supply.
- AB 105 (Wiggins, 2004): Requires urban water suppliers to submit their UWMPs to the California State Library.
- SB X7-7: Requires development and use of new methodologies for reporting population growth estimates, base per capita use, and water conservation. An agency can choose from four methods to establish their year 2020 water conservation targets. Retail water suppliers are required to comply with the water conservation requirements in SB X7-7 to be eligible for State water grants or loans.
- AB 2067: Requires water suppliers to provide narratives of water DMMs.
- SB 1036: Provides for an urban water supplier to include certain energy-related information, including, but not limited to, an estimate of the amount of energy used to extract or divert water supplies.
- AB 2409: Requires urban water suppliers to analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains separately from swimming pools and spas.

- AB 1572: Bans the use of potable water for irrigation of decorative turf grass that is not used for recreational or civic purposes, also referred to as non-functional turf. Applies to CII properties.
- AB 1668 and SB 606: Establishes long-term standards for efficient water use and requires both urban retail water suppliers and agricultural water suppliers to set annual water budgets and prepare for drought.
- AB 325: Created the Water Conservation in Landscaping Act requiring DWR to develop a Model Water Efficient Landscape Ordinance (MWELO). MWELO is a model for local agencies to enforce minimum standards in landscape design, construction, and management.

1.4 New Requirements Since the 2020 UWMP

The major new requirements since the 2020 UWMP cycle are summarized in Table 1-1.

Table 1-1 Applicable Changes Since 2020 UWMP

Topic	Summary
Making Conservation a California Way of Life	Effective January 1, 2025, this regulation sets annual "urban water use objectives" (UWUOs) for urban retail water suppliers. The water budgets are based on a supplier's specific factors, such as indoor and outdoor residential use, commercial and industrial irrigation, and water loss.
Water Loss Control	Regulations for urban retail water suppliers to develop performance standards for minimizing water system leaks became effective on July 1, 2023.
Monthly Water Conservation Reports	Since October 1, 2020, urban water suppliers have been required to submit monthly conservation reports to the SWRCB.
Prohibition on CII Nonfunctional Turf Irrigation	AB 1572, signed in October 2023, bans the use of potable water for irrigating "nonfunctional turf" in CII areas. The ban will be phased between 2027 and 2029.
NOTES: SWRCB – State Water Resources Control Board; UWUO – urban water use objective.	

1.5 Demonstration of Reduced Delta Reliance

Urban water suppliers that anticipate participating in or receiving water from a proposed project (i.e., "covered action"), 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), are required to demonstrate reduced Delta reliance. The City receives supply through the SWP which includes covered actions. Therefore, Appendix A of this plan demonstrates the City's consistency with Delta Plan Policy WR P1 (Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance).

1.6 Report Organization

This UWMP contains ten chapters, followed by appendices that provide supporting documentation for the information presented in the report. The chapters are briefly described below:

- Chapter 1 – Introduction and Lay Description: This chapter presents a lay description and the purpose of this UWMP.
- Chapter 2 – Plan Preparation: This chapter provides information on the process for developing the UWMP as well as coordination efforts with appropriate local agencies and the measures used to solicit public participation.
- Chapter 3 – System Description: This chapter presents a description of the water purveyor's service area and its characteristics including climate, population, and other demographic factors.
- Chapter 4 – Water Use Characterization: This chapter presents a description of the water purveyor's current and projected water uses within the service area in five-year increments.
- Chapter 5 – SB X7-7 Baselines, 2020 Targets, and 2025 Reporting: This chapter presents information on the water purveyor's compliance with the 2020 per-capita water conservation mandate. This chapter provides analyses and calculations associated with the water conservation target pursuant to SB X7-7.
- Chapter 6 – Water Supply Characterization: This chapter presents a description of the water purveyor's current and projected potable and non-potable water supply sources including information on the usage of surface water, groundwater, imported water, and an overview of usage of recycled water. This chapter also includes information on the energy required to produce and distribute the water supply.
- Chapter 7 – Water Service Reliability and Drought Risk Assessment: This chapter presents the reliability of the water purveyor's water system. This includes a discussion on future water reliability. In addition, there is an analysis of supply availability in a normal, single-dry-year, and in five consecutive dry years. This chapter also includes the DRA.
- Chapter 8 – Water Shortage Contingency Plan: This chapter includes an urban water shortage contingency analysis that includes stages of action to be undertaken in the event of water supply shortages; prohibitions, consumption reduction methods, and penalties; actions to be taken during a catastrophic interruption of service; and a mechanism for measuring water use reduction.
- Chapter 9 – Demand Management Measures: This chapter communicates the water purveyor's efforts to promote conservation and to reduce demand. The chapter includes narratives on each DMM.
- Chapter 10 – Plan Adoption, Submittal, and Implementation: This chapter describes the steps taken to adopt, submit, and implement the UWMP and make it publicly available.

CHAPTER 2 PLAN PREPARATION

This section includes specific information on how the UWMP was developed, including efforts in coordination and outreach.

2.1 Basis for Plan Preparation

CWC 10617 requires that urban water suppliers with 3,000 or more service connections or supplying 3,000 or more AF of water per year prepare an UWMP every five years.

> *10617 "Urban water supplier" means a supplier, either publicly, or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems…*

2.1.1 Public Water Systems

> *California Health and Safety Code 116275(h) "Public Water System" means 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.*

To demonstrate the basis of reporting, the Public Water System served by the City is listed in Table 2-1. As listed in Table 2-1, the City served one public water system with a total of 6,023 connections and a total of 2,235 acre-feet per year (AFY) in year 2025.

Table 2-1 Public Water Systems

Submittal Table 2-1 Retail: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
CA2810005	City of American Canyon	6,023	2,235
Total		6,023	2,235
NOTES: Source: 2025 Annual Report to the Drinking Water Program for Year Ending December 31, 2025.			

2.2 Individual Planning and Compliance

This UWMP reports solely on the City service area, as shown in Table 2-2. The City has notified and coordinated with appropriate regional agencies and constituents.

Table 2-2 Plan Identification

Submittal Table 2-2: Plan Identification		
	Type of Plan	Name of Regional Alliance or RUWMP
☑	**Individual UWMP**	
	If Water Supplier is also a member of a SB X7-7 Regional Alliance, select name from the drop-down.	
☐	**Regional Urban Water Management Plan (RUWMP)**	
	If Supplier selected RUWMP, select name from the drop-down.	
Notes: RUWMP – Regional Water Management Plan.		

2.3 Calendar Year and Units of Measure

> *1608.20(a)(1) Urban retail water suppliers … may determine the targets on a fiscal year or calendar year basis.*

The City is reporting on a calendar year basis and therefore 2025 data includes the months of January to December 2025. Table 2-3 indicates the City type of reporting year and the units of measure for reporting water volumes throughout the 2025 UWMP.

Table 2-3 Supplier Identification

Submittal Table 2-3: Supplier Identification	
Type of Supplier	
☐	Supplier is a wholesale supplier
☑	Supplier is a retail supplier
Fiscal or Calendar Year	
☑	UWMP Tables are in calendar years
☐	UWMP Tables are in fiscal years
Units of measure used in UWMP	
Unit	AF

2.4 Coordination and Outreach

The UWMPA requires that the UWMP identify the water agency's coordination with appropriate nearby agencies.

The City coordinated its efforts with relevant agencies and parties to ensure that the data and issues discussed in the plan are presented accurately.

2.4.1 Wholesale and Retail Coordination

> *10631(h) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available.*

The wholesale suppliers from which the City receives water supplies, as shown in Table 2-4, were provided 60-day notification (prior to the public hearing) that the City was in the process of preparing the 2025 UWMP. The 60-day notification letters are included in Appendix B. The wholesale suppliers were provided a notice of public hearing, including the time and location. The notice of public hearing to wholesale suppliers is included in Appendix B.

Table 2-4 Water Supplier Information Exchange

Submittal Table 2-4 Retail: Water Supplier Information Exchange Water Code Section 10631(h)
The retail Supplier has informed the following wholesale suppliers of projected water use.
Wholesale Water Supplier Name
Napa County Flood Control and Water Conservation District
City of Vallejo
City of Napa

The City meets regularly with other water suppliers. The City meets monthly with Napa County FCWCD and with other SWP contractors who purchase water from the Napa County FCWCD (i.e., Cities of Napa and Calistoga). The City also meets with the City of Vallejo for the purchase of Vallejo water.

2.4.2 Coordination with Other Agencies and the Community

> *10620(d)(3) Each urban water supplier shall 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.*
>
> *10642 Each urban water supplier shall encourage the 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…*

The City solicited participation from other agencies, organizations, and the community for the preparation of the 2025 UWMP.

2.4.3 Notice to Cities and Counties

> *10621(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify a city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*

The City provided formal written notification to the following cities, county, and agencies that the City's UWMP was being updated:

- City of Rio Vista.
- City of Dixon.
- City of Calistoga.
- City of Benicia.
- City of Vacaville.
- City of Fairfield.
- Local Agency Formation Commission of Napa County.
- Napa County Resource Conservation District.
- Napa Sanitation District (NSD).
- Reclamation District 2068.
- Solano County Water Agency.
- Solano Irrigation District.

The City also provided formal written notification to the following top water users that the City's UWMP was being updated:

- Napa Valley Unified School District.
- Mezzetta Processing Facility.
- American Canyon Mobile Home Park.
- Napa Olympia Mobilodge.
- The Lodge at Napa Junction.
- Top It Off Bottling, LLC.
- South County Napa Properties LP.
- Vintage Ranch LLC.

In accordance with the UWMPA, this notification was provided at least 60 days prior to the public hearing of the plan. Appendix B contains copies of outreach documents. The cities and counties were provided a notice of public hearing, including the time and location. The notice of public hearing to cities and counties is included in Appendix B.

Notices were published informing interested parties that the draft 2025 UWMP was available for review. Pursuant to California Code Section 6066, a notification of the time and place of the public hearing was published in the local newspaper on XXXX, XX, 2026, and XXXX, XX, 2026. A notice was also posted on the City's website (www.americancanyon.gov). Copies of these notifications are included in Appendix B.

The Final Draft 2025 UWMP was presented on August 18, 2026, for adoption by resolution following a public hearing. This hearing provided an opportunity for the City's customers, residents, and employees to learn and ask questions about the current and future water supply of the City.

CHAPTER 3 SYSTEM DESCRIPTION

The UWMPA requires that the UWMP include a thorough description of the water system, service area, and various aspects of the area served including climate, population, and other demographic factors.

> *10631(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.*

3.1 General Description

The City is located at the southern end of Napa County, just north of Solano County and the City of Vallejo. The City is located approximately 45 miles west of Sacramento along Interstate-80 and is approximately 5.5 square miles in size. American Canyon incorporated in 1992 from Napa County. Since its incorporation, the City has increased residential development and added a large amount of business and commercial expansion along the Highway 29 corridor and south of Napa Airport.

The City's potable water service area is approximately 11 square miles and encompasses the City limits and its sphere of influence and extends from the Napa River to the west to the Napa/Solano County line to the east and from the Napa/Solano County line to the south to Soscol Ridge north of the airport.

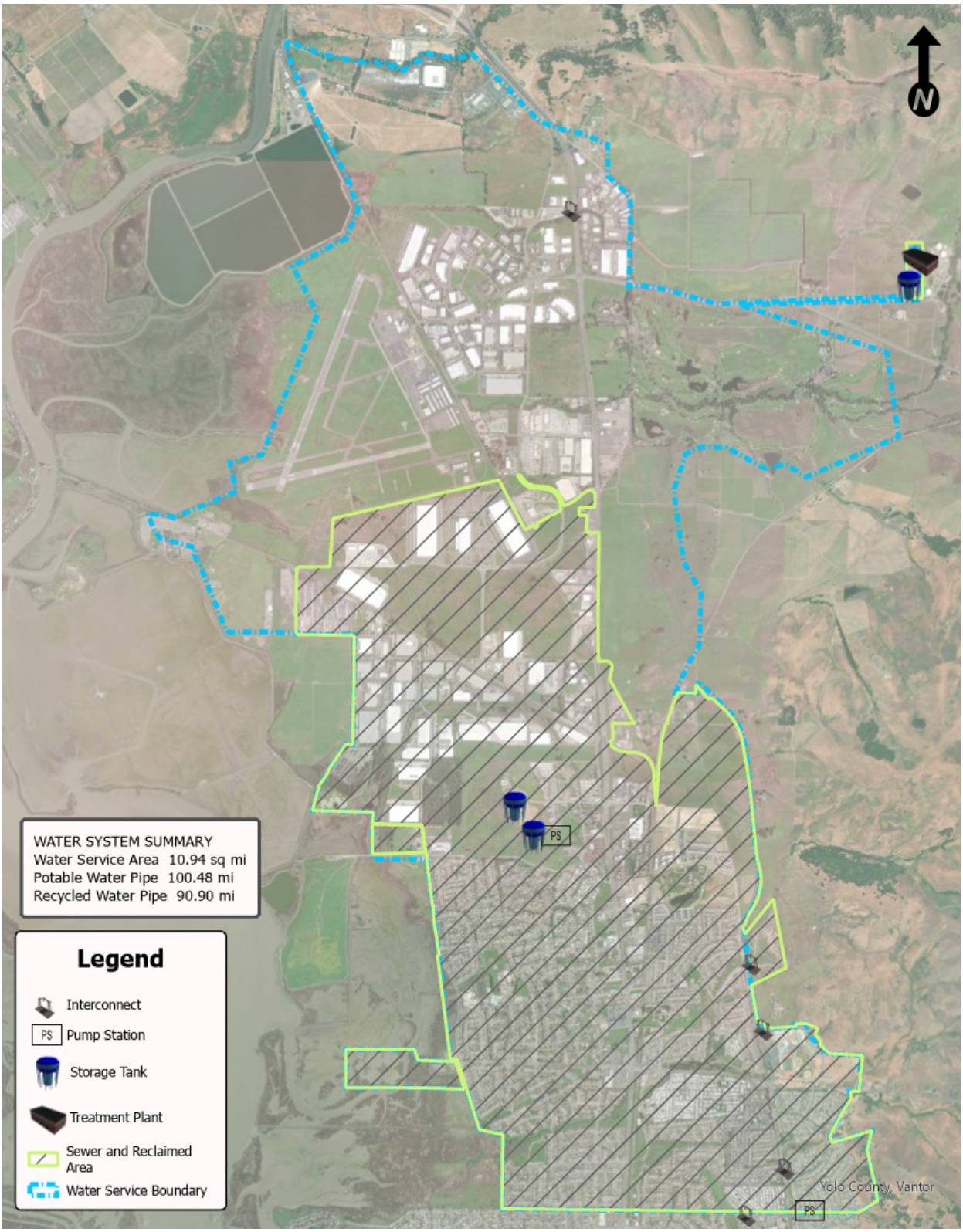
Figure 3-1 shows the City's water service area and sewer and reclaimed area. The City's water service area includes both the City limits as well as surrounding areas of unincorporated Napa County.

3.1.1 Description of Transmission, Treatment, and Distribution Facilities

The City's WTP (see Figure 3-1) has a maximum capacity of 5 mgd with an average daily demand of approximately 3 mgd. Treated water is delivered by gravity to the 2.5 MG water storage tank located at the WTP and flows from the tank to the distribution system.

The potable water distribution system consists of approximately 100 miles of water mains, three storage tanks, and two booster pump stations. The principal water transmission mains in the distribution system range in size from 14 to 20 inches. The distribution system in the older sections of the City range in size from 2 to 6 inches with the newer areas served by pipes 8 to 12 inches in diameter. Distribution system pipelines are constructed primarily of polyvinyl chloride (PVC), asbestos cement, and cast iron. The water distribution system contains five pressure zones.

The City potable water supply is purchased or imported water sources, mainly SWP water purchased from the Napa County FCWCD and the City of Vallejo.



Source: City of American Canyon

Figure 3-1 Water Service Boundary and Infrastructure Location Map

3.2 Service Area Climate

> *10631(a) A plan shall… Describe the service area of the supplier, including … climate…*
>
> *10630 It is the intention of the Legislature, in enacting this part, to permit levels of water management planning… while accounting for impacts of climate change.*

The City's service area climate is characterized by warm dry summers and mild winters. Average monthly evapotranspiration (ETo) rates, rainfall, and temperature are summarized in Table 3-0.

Table 3-0 Climate Characteristics

Table 3-0: Climate Characteristics[(1)]

Month	Monthly Average ETo (inches)	Monthly Average Rainfall (inches)	Monthly Average Temperature (degrees Fahrenheit, [F])		
			Average	Minimum	Maximum
January	1.25	3.88	47.06	37.59	57.78
February	1.86	3.78	49.69	38.68	61.72
March	3.14	2.52	52.42	40.30	65.38
April	4.41	1.32	54.81	41.53	68.41
May	5.61	0.70	58.73	44.89	72.91
June	6.20	0.15	63.00	47.95	78.83
July	6.30	0.01	63.98	50.35	80.01
August	5.46	0.03	64.13	50.23	81.11
September	4.60	0.05	63.09	47.70	81.27
October	3.23	1.18	58.40	43.41	75.52
November	1.68	2.26	51.22	38.80	65.26
December	1.07	4.14	46.57	36.51	57.75
Annual	**44.81**	**20.02**			

NOTES: F - degrees Fahrenheit.
(1) Source: California Irrigation Management Information System (CIMIS) Station 109 Carneros. Represents monthly average from March 1993 to December 2021.

Climate data is from the CIMIS Gerber South Station Number (No.) 109 (activated in March 1993 and disconnected January 13, 2022). ETo values, which serve as indicators of how much water is required to maintain healthy agriculture and landscaping, range from 1.07 inches (December) to 6.30 inches (July). Average annual rainfall is approximately 20.02 inches (value reflects the sum of monthly average rainfall). The majority of rainfall occurs from November through March. Monthly precipitation has been as high as 13.16 inches (January 1995). The January mean temperature is 47 degrees F, with an average high of 58 degrees F and an average low of 38 degrees F. The July mean temperature is 64 degrees F with an average high of 80 degrees F and an average low of 50 degrees F.

3.3 Service Area Population and Demographics

> *10631(a) Describe the service area of the supplier, including current and projected population... The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.*

This section summarizes historical, current, and projected population trends in the City. Population projections are essential to the planning process and form the basis for most planning decisions, yet projecting future growth is far from an exact science given the complex set of variables that can affect the rate of growth. Typically, projections are developed by taking past patterns and combining them with assumptions regarding the future to obtain an estimate of future growth rates. These projections serve to provide the City insight on the type and quantity of future growth as well as guidance regarding future planning activities; therefore, such planning activities can only be as effective as the ability to anticipate population growth.

3.3.1 Service Area Population

The current and projected population within the City's water service area is summarized in Table 3-1 and includes the total populations within the City limits and outside of the City limits as described in the following sections.

Table 3-1 Population – Current and Projected

Submittal Table 3-1 Retail: Population - Current and Projected Water Code Section 10631(a)						
Population Served	2025	2030	2035	2040	2045	2050
	22,477	23,830	24,555	25,280	26,005	26,730
NOTES: Refer to Sections 3.3.1.1 and 3.3.1.2 for projected populations methodologies.						

3.3.1.1 Population within City Limits

After incorporation of the City in 1992, the City experienced rapid growth between 1995 and 2010 with an average annual growth rate of over 8 percent. Population growth has slowed in recent years, and the annual growth rate since 2010 has been around 1 percent (2023-2031 Housing Element).

The City had a population of 22,773 in 2025 according to the United States Census Bureau (www.census.gov).

The 2030 and 2040 projected populations in Table 3-1 are per the General Plan (November 2025) population projections prepared by the Association of Bay Area Governments for the City. Based on the 2030 and 2040 population projections, this results in a population increase of approximately 725 every 5 years. For 2035 and 2040 to 2050, it was assumed that the population growth rate would remain at the same rate (approximately 3 percent every 5 years).

The following new developments are expected to contribute to housing growth in the City:

- Watson Ranch Project: Approximately 1,253 medium density housing units and 186 high density housing units are expected to be added in the northeastern portion of the City. As of 2026, approximately 461 housing units are completed.
- Broadway District Priority Development Area: Approximately 1,200 housing units are expected to be added along the Highway 29 corridor. As of 2026, approximately 66 housing units are completed.
- Domaine (formerly Oat Hill): Approximately 291 multi-family units are expected to be added west of Highway 29. As of 2026, approximately 85 housing units are completed.
- Canyon Estates: Approximately 35 housing units are expected to be added in the eastern portion of the City. The first units are under construction in 2026.
- Crawford Way Development: Approximately 100 multi-family units are expected to be added in the western portion of the City. The first units will begin construction in late 2026.

The City has other proposed development projects in planning and approval phases. Refer to Section 3.4 for future study area (Hess/Laird property) that has the potential for additional growth.

3.3.1.2 Population Outside of City Limits

Less than 1 percent of the City's single-family residential customers are located outside of the City limits in unincorporated Napa County in areas that have not experienced any housing development. These "legacy" accounts were originally connected and served by the American Canyon County Water District, a predecessor to the City.

The California Department of Finance (DOF) estimates population each year based on the number of building permits issued, residential units destroyed, requests for new electrical connections, etc. To estimate the population outside of the City limits, the number of residential accounts in 2025 (34) was multiplied by the number of persons per household for unincorporated Napa County for 2025, which was 2.38 according to the most recent DOF estimates. Based on this calculation, the population outside of the City limits is estimated to be 81.

For 2030 to 2050, it was assumed that the General Plan population projections includes the population outside of City limits.

3.3.2 Other Social, Economic and Demographic Factors

> *10631 Describe the service area of the supplier, including… other social, economic and demographic factors affecting the supplier's water management planning.*

Analyzing demographic data can yield important information about possible shifts in demand for City water service.

According to the 2023-2031 Housing Element, the largest employment sectors are health and educational services (40 percent), manufacturing, wholesale, and transportation (19 percent), financial and professional services (12 percent), and retail (11 percent).

The 2023-2031 Housing Element indicates that the majority of housing units are single-family detached homes (79.1 percent), and the number of housing units was 6,214 in 2020.

75.0 percent of the population is over 18 years of age, and the population is split 48.3 to 51.7 percent male to female, respectively (United States Census Bureau QuickFacts).

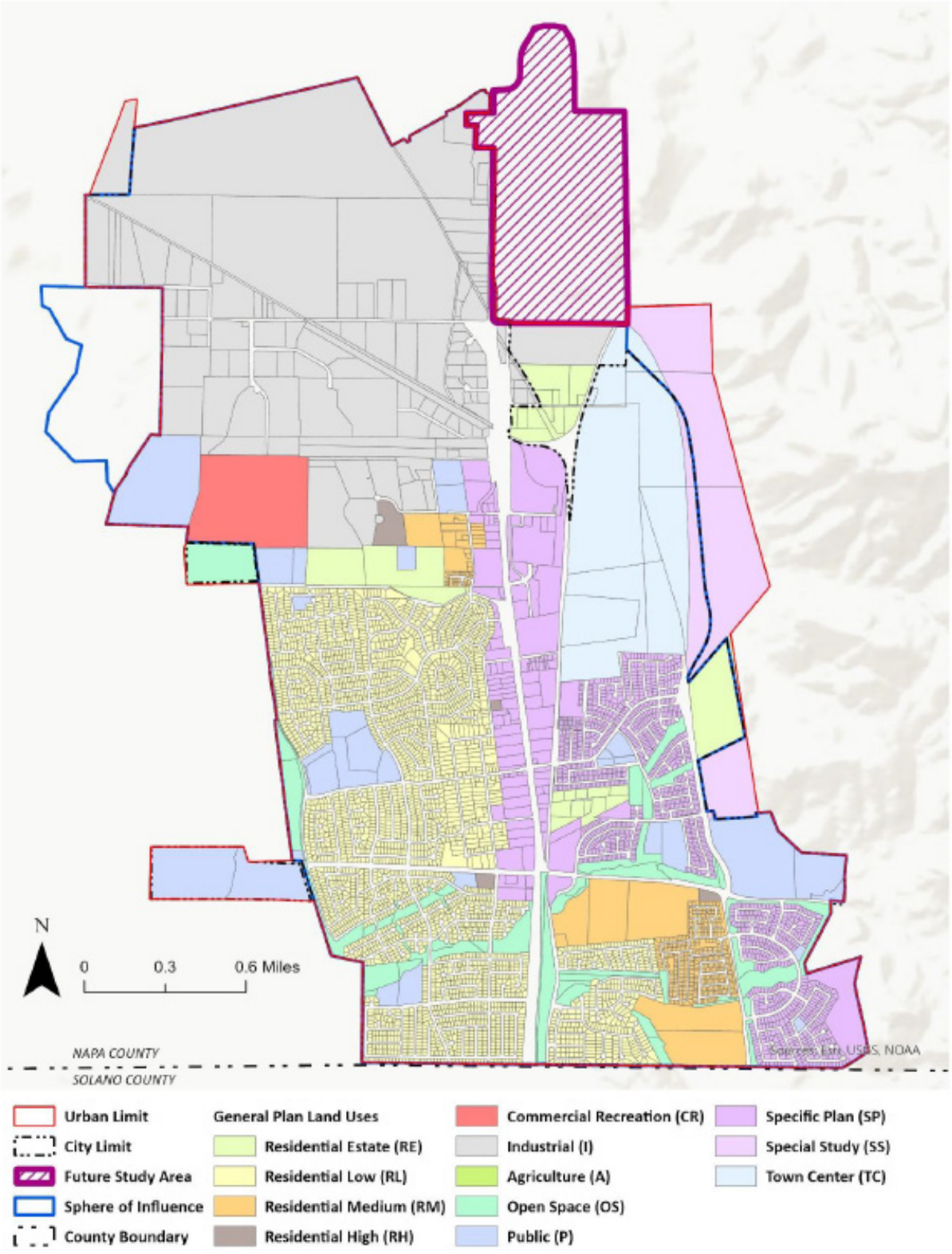
The California median household income in 2025 was $118,100 (U.S. Department of Housing and Urban Development). The median household income for the City from 2020-2024 in 2024 dollars was $121,700 (US Census Bureau QuickFacts).

The California Employment Development Department reported an 8.8 percent unemployment rate for 2020 and a 4.5 percent unemployment rate for 2025.

3.4 Land Uses Within Service Area

> *10631(a) The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities…*

The Land Use Element in the General Plan (November 2025) establishes the pattern and intensity of land use in the city and sets forth the City's policies and standards for guiding future development. Figure 3-2 identifies the location of land uses by land use designation.



Source: City of American Canyon General Plan Land Use Element (November 2025)

Figure 3-2 Land Use Map

The City has identified a future study area (refer to Figure 3-2) that has the potential for additional growth. This future study area encompasses the Hess/Laird property which is currently located within the jurisdiction of Napa County and was recently rezoned for industrial uses by the County. This future study area will be revisited during preparation of the 2030 UWMP when more information about specific uses for this property may be available.

3.5 Climate Change

Projected climate change trends for California include increasing temperature and increasing precipitation as rainfall rather than snow. Water suppliers need to assess local climate challenges and plan for vulnerabilities within their systems. As these risks are identified, methods of adaptation and mitigation can be employed to increase sustainability of water resources.

In the past decade, there has been a significant increase in tools and models to help identify potential impacts of climate change. The various resources differ in the information available in each service area, scenario assumptions, and parameters potentially impacted by climate change. The following tools were evaluated for this UWMP and are described in further detail in the sections below:

- Climate Resilience Evaluation and Awareness Tool (CREAT).
- Cal-Adapt Extended Drought Scenarios Tool.
- Cal-Adapt Wildfire Tool.

3.5.1 EPA Climate Resilience Evaluation and Awareness Tool

The United States Environmental Protection Agency (EPA) created an online resource called CREAT to assist water agencies in preparing for potential future impacts on their systems caused by climate change. This tool utilizes model simulation to estimate changes in temperature, precipitation, storms, extreme heat, and sea level rise. For the purposes of this UWMP, the Cal-Adapt tool was used, which is consistent with the tool presented by DWR.

3.5.2 Cal-Adapt Extended Drought Scenarios Tool

Cal-Adapt is an online resource created by the State of California's scientific and research community to provide visualization tools and high-quality data regarding climate change at a local level. This resource allows the user to explore charts, maps, data, and projected climate variables for the State of California, and is a key recommendation of the 2009 California Climate Adaptation Strategy and the DWR. All projections generated include two possible climate outcomes; one scenario where greenhouse gas (GHG) emissions peak near year 2040 and decline beyond 2040 (medium, Representative Concentration Pathway [RCP] 4.5), and another in which GHG emissions continue to rise throughout the 21st century (high, RCP 8.5). The tool allows the user to search by watershed, grid, counties, census tracts, and incorporated and census designated places. Thus, this tool was used to evaluate the impacts of climate change within the City's service area using the medium, RCP 4.5, and high, RCP 8.5, GHG emission scenarios.

The Extended Drought tool was used to evaluate early and late century variable climate impacts for the City watershed over a 20-year drought including 5 years prior and 4 years following. This two-decade extended drought period is often referred to as a "mega-drought." The results, which include minimum and maximum temperature, precipitation, ETo, and runoff, are summarized in Table 3-2.

Table 3-2 Extended Drought Scenario Projections

Table 3-2: Extended Drought Scenario Projections

Parameter	Observed Historical (1961 - 1990)	Early-Century (2023 - 2042)	Late-Century (2051 - 2070)
Maximum Temperature (°F)	70.8	74.3	77.4
Minimum Temperature (°F)	45.5	48.0	51.2
Precipitation (inch)	22.6	19.2	19.2
Evapotranspiration (inch)	15.3	14.3	14.4
Runoff (inch)	2.7	2.4	2.3
NOTES: Retrieved using Cal-Adapt Extended Drought tool.			

The projected increase in maximum temperature from historical years to late-century is 6.6 degrees F (9.3 percent), whereas the projected increase in minimum temperature is 5.7 degrees F (12.5 percent). Precipitation is projected to decrease by 3.4 inches by late-century (15.0 percent), ETo by 0.9 inches (5.9 percent), and runoff by 0.4 inches (14.8 percent).

3.5.3 Cal-Adapt Wildfire Tool

The Cal-Adapt Wildfire tool utilizes four models identified by the California Climate Action Team as priority models contributing to the 2018 California Fourth Climate Change Assessment. The models listed below describe the scenarios used in area burned wildfire projections:

- Warm/dry scenario (HadGEM2-ES).
- Cooler/wetter scenario (CNRM-CM5).
- Average scenario (CanESM2).
- A scenario that is unlike the first three models, the "complement" scenario (MIROC5).

The model projections generated include the same two possible climate outcomes: RCP 4.5 and RCP 8.5. Time periods for the wildfire analysis include historical (1961-1990), mid-century (2035-2064), and end of the century (2051-2070). The population growth scenario for the City service area was identified as central, or median. Summary statistics of all four priority models under medium and high RCP conditions for the City watershed are below in Table 3-3.

Table 3-3 Summary of Projected Wildlife Area Burned

Table 3-3: Summary of Protected Wildlife Area Burned			
Parameter	Observed Historical (1961 - 1990)	Mid-Century (2035 - 2064)	End of the Century (2051 - 2070)
RCP 4.5 Conditions			
Minimum Area Burned (hectares)	63.0	59.0	82.0
Average Area Burned (hectares)	151.8	165.4	167.6
Maximum Area Burned (hectares)	273.0	323.0	262.0
RCP 8.5 Conditions			
Minimum Area Burned (hectares)	64.0	70.0	68.0
Average Area Burned (hectares)	156.1	165.6	158.1
Maximum Area Burned (hectares)	341.0	266.0	274.0
NOTES: Retrieved using Cal-Adapt Wildfire tool.			

Based on these statistics, the probability of wildfires in the City watershed is anticipated to be fairly steady, while the average area burned is anticipated to increase under both the RCP 4.5 and RCP 8.5 conditions.

CHAPTER 4 WATER USE CHARACTERIZATION

The UWMPA requires that the UWMP identify the quantity of water supplied to the agency's customers including a breakdown by user classification. This section describes the water system demands and water demand projections.

4.1 Non-Potable Versus Potable Water Use

This chapter covers potable and raw water demand. Recycled water is addressed comprehensively in Chapter 6.

4.2 Past, Current, and Projected Water Use by Sector

> *10631(d)(1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following…*
>
> *(2) The water use projections shall be in the same five-year increments described in subdivision (a).*
>
> *(4)(A) Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.*
>
> *(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following: (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections. (ii) 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.*

The following water use sectors and associated metered deliveries, as shown in Table 4-0, were reported in the 2020 UWMP.

Table 4-0 2020 Water Deliveries

Table 4-0:2020 Water Deliveries	
Use Type	**2020 Actual (AF)**
Single Family	1,276
Multi-Family	178
Commercial, Institutional, and Industrial (CII)	763
Landscape	139

Table 4-0:2020 Water Deliveries	
Use Type	**2020 Actual (AF)**
Agricultural	63
Other Potable[(1)]	73
Distribution System Water Loss	144
TOTAL	2,636
NOTES: (1) Private fire protection services and temporary watering of construction sites.	

The actual demands for potable and non-potable water are presented in Table 4-1 for the 2025 calendar year. All connections in the City are metered.

Table 4-1 Total Uses for Potable and Non-Potable Water

Submittal Table 4-1 Retail: Total Uses for Potable and Non-Potable Water — Actual Water Code Section 10631(d)(1)			
Use Type	Additional Description	2025 Actual Water Use	
		Potable or Non-Potable	Volume (AF)
Single Family		Potable	1,117
Multi-Family		Potable	207
Commercial	Includes industrial/institutional.	Potable	622
Landscape		Potable	109
Agricultural	Raw water.	Non-Potable	28
Other	Private fire protection services, temporary watering of construction sites.	Potable	41
Other	Hydrant Flushing.	Potable	9
Distribution System Water Loss	Estimated.	Potable	102
Subtotal Potable			2,207
Subtotal Non-Potable			28
Total			2,235
NOTES: Source: City 2025 Itemized Water Estimates. (1) Loss was calculated as the difference between total water produced and total water consumed.			

Table 4-2 contains the projected water demands from 2030 through 2050. The demand projections are based on the following assumptions for each use type:

- SFR and MFR: In 2025, the total residential (single-family and multi-family) demand was 1,324 AFY (see Table 4-1) and the estimated population was 22,854 (see Table 3-1). The projected population (see Table 3-1) was multiplied by the 2025 residential demand factor (52 gallons per person per day). SFR demands were assumed to be 90 percent of the total residential demand.
- CII: Assumed to increase at the same rate as SFR and MFR.
- Landscape: Assumed to remain at the 2025 water use through 2050. Potable water demand for landscape irrigation is expected to decrease as conversion to recycled water occurs (see Table 6-6). The Water Waste Prohibitions Ordinance (City Municipal Code Section 13.14.060) and City Municipal Code Chapters 16.14 and 19.22 may also contribute to "passive" water savings (see Section 9.1).
- Agricultural Irrigation: Assumed to remain at the 2025 water use through 2050.
- Other Potable (private fire protection services, temporary watering of construction sites): Assumed to remain at the 2025 water use through 2050.
- Other Potable (hydrant flushing): Assumed to remain at the 2025 water use through 2050.
- Losses: Assumed to remain at the 2025 distribution system water loss (5 percent of the total projected potable water use). Refer to Section 4.4 for further information.

Table 4-2 Total Uses for Potable, and Non-Potable Water - Projected

Submittal Table 4-2 Retail: Total Uses for 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)					
		Potable or Non-Potable	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Single Family		Potable	1,249	1,287	1,325	1,363	1,401
Multi-Family		Potable	139	143	147	151	156
Commercial	Includes industrial/institutional	Potable	695	716	737	758	779
Landscape		Potable	109	109	109	109	109
Agricultural	Raw water	Non-Potable	28	28	28	28	28
Other	Private fire protection services, temporary watering of construction sites	Potable	41	41	41	41	41
Other	Hydrant Flushing	Potable	9	9	9	9	9
Distribution System Water Loss		Potable	112	115	118	121	124
Subtotal Potable			2,353	2,420	2,486	2,553	2,619
Subtotal Non-Potable			28	28	28	28	28
Total			2,381	2,448	2,514	2,581	2,647

The customer sector water deliveries in Table 4-2 are only general estimates of projected use and may vary significantly based on future development and water conservation measures taken by each customer sector. Ultimately, the implementation, magnitude, and type of future development will determine the distribution of water use per customer sector.

4.3 Estimating Future Water Savings

"Passive" savings are water savings from codes, standards, ordinances, or transportation and land use plans. As shown in Table 4-3, future water savings are included in the water use projections for landscape irrigation (Table 4-2). Optional Table 4-4 has been left blank.

Table 4-3 Inclusion in Water Use Projections

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?	Yes
If "Yes" to above, state the section or page number, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	Section 4.2
Are Lower Income Residential Demands Included In Projections?	Yes
If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found.	Section 4.5

Table 4-4 Passive Water Savings Projections

***Optional* Submittal Table 4-4 Retail: Passive Water Savings Projections Water Code Section 10631(d)(4)(A)**					
Description (Codes, Standards, Ordinances, or Plans)	Passive savings				
	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)

4.4 Distribution System Water Losses

10631(e)(1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:

(J) Distribution system water loss.....

10631(d)(3)(A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34

Distribution system water losses ("real" losses) are the physical water losses from the water distribution system and the supplier's storage facilities up to the point of delivery to the customer's system (e.g., up to the residential water meter). The City's distribution system losses are quantified using the American Water Works Association (AWWA) Method Guidance "Water Resources Water Audit Manual." Distribution system water losses include "real losses" (leaks) and "apparent losses" (unauthorized consumption, metering inaccuracies, data errors).

As shown in Table 4-5, the distribution system water loss was reported to DWR for 2020 through 2022 calendar years. The City is in process of finalizing and submitting the 2023 and 2024 water loss audits.

Table 4-5 Water Loss Audit Reporting

Submittal Table 4-5 Retail: Water Loss Audit Reporting Water Code Section 10631(d)(3)(A)		
Public Water System ID Number	Reporting Period	Submitted to DWR Water Loss Audit Program(1)
CA2810005	**2020**	Yes
	2021	Yes
	2022	Yes
	2023	No
	2024	No

NOTES: (1) Refer to the following links for the Water Loss Audit Reports.
2020:
https://wuedata.water.ca.gov/public/awwa_uploads/3529294669/American%20Canyon%20%2D%20Validated%20Water%20Audit%20%2D%202020%2Exlsx
2021:
https://wuedata.water.ca.gov/public/awwa_uploads/2298413932/American%20Canyon%20%2D%20Validated%20Water%20Audit%20%2D%202021%2Exlsx
2022:
https://wuedata.water.ca.gov/public/awwa_uploads/4545255362/American%20Canyon%20%2D%20Validated%20Audit%202022%2Exlsx

4.4.1 Progress Toward Meeting the Water Loss Performance Standard

> *10631(d)(3)(C) In the plan due July 1, 2021, and in each update thereafter, data shall be included to show whether the urban retail water supplier met the distribution loss standards enacted by the board pursuant to Section 10608.34.*

The SWRCB has calculated 2028 real water loss and apparent water loss standards for the City. Table 4-6 presents the progress towards the 2028 water loss standards based on the most recent AWWA water loss audit (2024). The 2024 real and apparent water loss is below the 2028 real and apparent water loss standards. The City will maintain water losses to achieve compliance beginning January 1, 2028. Refer to Section 9.5 for additional information.

Table 4-6 Progress Towards 2028 Water Loss Standard

Submittal Table 4-6 Retail: Progress Towards 2028 Water Loss Standard Water Code Section 10631(d)(3)(C)											
Public Water System ID Number	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit			State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss	Number of Connections	Volume of Total Real Loss (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 (AF)	Apparent Water Loss Per Unit per Day
CA2810005	Yes	16.4	GPSCD	5,999	107	15.9	8.0	GPSCD	5,999	15	2.2
NOTES: GPSCD - gallons per service connection per day. Data from the City's 2024 AWWA Water Loss Audit.											

4.5 Water Use for Lower Income Households

The UWMPA requires that the UWMP identify planned low-income housing developments within the agency's service area and develop demand projections for those units. A lower income household is defined as one with an income below 80 percent of area median income, adjusted for family size.

> *10631.1(a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.*

As shown in Table 4-3, lower income household demand projections are included in the total water use projections (Table 4-2).

The City's General Plan's Housing Element is the City's housing plan. The City, along with all California cities and counties, is required to adequately plan to meet the housing needs of everyone in the community. The foundation for the Housing Element is the Regional Housing Needs Assessment (RHNA), in which the State estimates each region's housing needs for all income groups. The Housing Element contains the City's housing needs targets for five income groups.

The RHNA for the City for the 2023 to 2031 projection period is 622 new housing units, including 169 very low-income units, 109 low-income units, 95 moderate-income units, and 249 above moderate-income units (2015-2023 Housing Element).

It should also be noted, State legislation in 2017 made Accessory Dwelling Units (ADUs) legal in all California cities. Homeowners can decide to build either a detached ADU in their backyard, an attached ADU that is part of a home addition, or an ADU conversion. Although the State has determined ADUs contribute no additional stress on utilities, the addition of another dwelling unit, another family occupant, on a single-family property does impact water usage. The City has issued [few/many] permits for ADUs since 2017.

4.6 Climate Change Considerations

As temperature rises, water demands from various types of users will likely increase. Daily heat patterns, such as the duration of daytime heat prior to nighttime cooling, will change the diurnal demand patterns and peaking factors for activities, such as landscaping and other outdoor water use features (e.g., pools, fountains, open water bodies), due to increased ETo values. The altered climate patterns in California creating hotter days and longer heat waves will increase customer water use and evaporative water losses. Extended drought periods are expected to become both more frequent, and more severe, which could lead to reduced rainfall and snowpack.

The combination of a long-term reduction in water supply availability with a long-term increase in water demand and higher summer demand peaks will increase pressure on the City to meet demands. Technology and devices to increase monitoring through the distribution system will help the City prepare for, and respond to, changes in supply and demand due to climate change. Creating redundancy through backup systems and supply sources will help the City achieve efficiencies required in the face of climate change considerations. Getting localized, region specific data on climate change forecasts and impacts would also help the City for planning purposes.

The City's service area is predicted to have declining precipitation and increasing temperatures, which may change demand levels and patterns. Continued reduction in per capita demand with water conservation will become more challenging as BMP saturation levels climb. Climate change will likely put more strain on the City's ability to meet demands long-term. If per capita water demand increases with temperature, or the population increases at a higher rate, or purchased or imported water supplies decrease due to extended droughts, or water availability is impacted due to wildfires, the effects could have serious consequences.

CHAPTER 5 SB X7-7 BASELINES, 2020 TARGETS, AND 2025 REPORTING

The UWMPA requires that the UWMP identify the baseline water demand and urban water use target for the City. In the 2015 UWMP, water use targets were determined per the DWR Methodologies. The daily per capita water use, expressed in gpcd, is the total water use within the service area divided by the population. These targets are necessary to judge compliance with the 2020 use reductions set forth in the Water Conservation Bill of 2009 (SB X7-7).

The purpose of this section is to report on the City's compliance in meeting the 20 percent conservation mandate (i.e., 2020 Target). All SB X7-7 forms previously submitted in the 2020 UWMP are included in Appendix C.

5.1 Baselines

In the 2015 UWMP, a 10-year baseline and a 5-year baseline were calculated to establish the minimum criteria for the City's water use reduction targets. A summary of the 2008 total and recycled water deliveries, 10-year baseline range (1999 to 2008), and 5-year baseline range (2003 to 2007) is included in Table 1 of the SB X7-7 Verification Form (Appendix C).

5.2 Service Area Population

> *10608.20(e) An urban retail water supplier shall include in its urban water management plan… the baseline per capita water use… along with the bases for determining those estimates, including references to supporting data.*
> *(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.*

Service area population is reported for each year in the baseline periods as well as 2020, the compliance year, in Table 3 of the SB X7-7 Verification and Compliance Forms (Appendix C). As shown in Table 2 of the SB X7-7 Compliance Form (Appendix C), the 2020 population is per SB X7-7 Method for Population Finances 1 (DOF Table E-5) and per SB X7-7 Method for Population Finances 2 (Persons-per-Connection Method).

5.3 Gross Water Use

> *10608.12(g) "Gross Water Use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:*
> *(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier*
> *(2) The net volume of water that the urban retail water supplier places into long term storage*
> *(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier*
> *(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.*

"Gross Water Use" is the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier with certain acceptable exclusions. Gross water use is reported for each year in the baseline periods as well as 2020, the compliance year, in Table 4 of the SB X7-7 Verification and Compliance Forms (Appendix C).

5.4 Baseline Daily Per Capita Water Use

The baseline daily per capita water use in each of the baseline years is calculated in Table 5 of the SB X7-7 Verification Form (Appendix C) by dividing annual gross water use by annual service area population. The average baseline daily per capita water use for the 10-year baseline, and 5-year baseline is summarized in Table 6 of the SB X7-7 Verification Form (Appendix C). The average baseline daily per capita water use for 2020, the compliance year, is summarized in Table 5 of the SB X7-7 Compliance Form (Appendix C).

5.5 Targets Summary

Based on the water use targets calculated in 2015, the City water use target for 2020 was 162 gpcd. The 2020 target was determined using Method 1. In order to meet the confirmation criteria, the 2020 target must fall below 95 percent of the 5-year baseline, which for the City is 204 gpcd. According to the DWR guidelines, the 2020 target is valid since it is less than the target confirmation criteria of 194 gpcd.

Refer to Table 7 and Table 8 of the SB X7-7 Verification Form (Appendix C) for more information on the calculation method and a summary of the targets.

5.6 Target Progress Reporting

> *10608.12(e) "Compliance daily per-capita water use" means the gross water use during the final year of the reporting period…*
>
> *10608.20(e) An urban retail water supplier shall include in its urban water management plan… compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.*
>
> *10608.40 Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans…*

Water suppliers were required to calculate their actual 2020 water use (2020 calendar year) and evaluate whether their per capita 2020 target use was met. Refer to Table 5-1 and SB X7-7 Compliance Form Table 9 (Appendix C) for 2020 compliance. If water suppliers had not met the 2020 compliance, Table 5-1 would have entries for the 2025 per capita water use with confirmation of whether they met the 2020 target in 2025.

Table 5-1 SB X7-7 2020 Target Progress

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress Water Code Section 10608.40						
Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target?	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	**Only for suppliers that did not meet the Target in 2020**	
					Actual 2025 GPCD	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	162	116	Yes	NA	NA
NOTES: NA - Not applicable.						

The City met the 2020 target (162 gpcd) in the year 2020 (116 gpcd) and in the year 2025 (87 gpcd). The State Water Board's *Making Conservation a California Way of Life* regulation uses the 2020 Target as a back stop for the UWUO calculations. The City will implement conservation measures, as needed, to comply with the *Making Conservation a California Way of Life* regulation (compliance effective January 1, 2027). In all of its conservation programs, the City will avoid placing a disproportionate burden on any customer sector.

CHAPTER 6 WATER SUPPLY CHARACTERIZATION

The UWMPA requires that the UWMP include a description of the agency's existing and future water supply sources for the next 20 years. The description of water supplies must include detailed information on surface water, groundwater, the groundwater basin, potential opportunities for desalination of groundwater and seawater, and detailed information on the agency's imported water.

6.1 Purchased or Imported Water

The City's water supply is imported water from the SWP and City of Vallejo in addition to other supplemental imported water sources as described in the following subsections. The City's contracts and agreements are available upon request.

6.1.1 State Water Project

The main source for the City's water supply is from the SWP, which is operated by DWR. SWP water used by the City is diverted from the Delta and conveyed approximately 27 miles through the North Bay Aqueduct (NBA) system to the City's WTP.

6.1.1.1 "Table A" Allotment

In 1967, the City (operating then as the American Canyon County Water District) entered into an agreement with the Napa County FCWCD for annual allotments of SWP water (i.e., "Table A" allotments). The City's contract with Napa County FCWCD is through 2035 and includes provisions for extensions. It is anticipated that the contract will be extended through 2085.

The City's current "Table A" allotment is 5,200 AFY. The actual amount of SWP water available to the City varies from year-to-year due to hydrologic conditions, water demands of other SWP contractors, SWP facility capacity, and environmental/regulatory requirements.

6.1.1.2 Article 21 Water

In certain years, the City may also receive additional SWP water known as Article 21 water, which is identified in Article 21 of SWP long-term water supply contracts between DWR and each SWP water contractor. The year-to-year availability of the Article 21 water supply varies, and Article 21 water becomes available only when the following conditions are met:

- Such deliveries do not interfere with SWP "Table A" allocations and SWP operations.
- Excess water is available in the Delta.
- Capacity is not being used for SWP purposes or scheduled SWP deliveries.
- Contractors can use the SWP Article 21 water directly or can store it in their own system (i.e., the water cannot be stored in the SWP system).

6.1.2 City of Vallejo

As described in the following subsections, the City has an agreement with the City of Vallejo to purchase the following water types:

- Vallejo Permit Water (raw water).
- Vallejo Treated Water (potable water).
- Vallejo Emergency Water (raw water).

6.1.2.1 Vallejo Permit Water

Vallejo has an appropriative water right for Delta water from the State Water Resources Control Board (SWRCB) pre-dating the construction of the SWP. The agreement with Vallejo allows the City to purchase up to 500 AFY of this water supply, referred to as Vallejo Permit Water (raw water), which is delivered through the SWP's NBA system. Since the City began receiving Vallejo Permit Water in 1999, the City has received 100 percent of the full contracted volume every year with the exception of a supply curtailment in 2015.

6.1.2.2 Vallejo Treated Water

The agreement with Vallejo allows the City to purchase up to 628.6 AFY of Vallejo Treated Water (potable water). Vallejo Treated Water is delivered via an intertie connection following treatment of water at Vallejo's Fleming Hill WTP.

6.1.2.3 Vallejo Emergency Water

The agreement with Vallejo allows the City to purchase up to 500 AFY of Vallejo Emergency Water (raw water) only in years when the City's "Table A" allotment is curtailed.

6.1.3 Other Imported Water Sources

In addition to the primary supply sources described previously, in some years, the City also uses other supplemental imported water sources as described in the following subsections. The availability of these water supplies vary from year-to-year.

6.1.3.1 Other State Water Project Sources

Dry Year Water Purchase Program

DWR's Dry Year Water Purchase Program (or Dry Year Water Bank) allows interested SWP contractors in dry years the option to purchase emergency water supplies from Sacramento Valley rice farmers, if supply is made available.

Article 56 Carryover Water

DWR's Article 56 Carryover Program allows water that is allocated to an SWP contractor but not used by the end of the year to be used in the next year. This water is exported from the Delta by the Banks Pumping Plant and stored in the San Luis Reservoir.

"Table A" Exchange Return Water

DWR's "Table A" Exchange Return Water Program allows interested SWP contractors to receive a portion of another SWP contractors approved "Table A" allotment in exchange for return of future approved SWP "Table A" water at an established exchange ratio.

Turn-Back Water Pool Program

DWR's Turn-Back Water Pool Program allows interested SWP contractors the option to buy and sell unused "Table A" water. The City has not purchased water through this program since 2016.

Dry-Year Transfer Program

DWR's Dry Year Transfer Program allows for transfers in dry years through a combination of crop idling, groundwater substitution, and changes in reservoir operation. The City has not purchased water through this program since 2015.

Yuba Accord Dry-Year Water

The Lower Yuba River Accord is an agreement to settle issues related to in-stream flows in the Yuba River and fisheries habitat. The Yuba Accord Dry-Year Water Purchase Agreement allows interested SWP contractors the option to purchase water in dry years. The City has not purchased water through this program since 2015.

6.1.3.2 City of Napa Emergency Water

The agreement with Napa allows the City to purchase treated (potable) water under emergency conditions or when the NBA system or City WTP is offline for maintenance or other reasons. This water source would be deducted from the City's SWP "Table A" allotment.

6.2 Groundwater

The City is located over the Napa-Sonoma Valley Lowlands Subbasin (identified as Groundwater Basin Number 2-002.03 by DWR). Previous studies of groundwater productivity in and near the City have indicated that usable groundwater resources in the City may be limited. As shown in Table 6-1, the City does not operate groundwater wells within the City limits for water supply.

Table 6-1 Groundwater Volume Pumped

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.						
☐	Check the box if all or part of the groundwater described below is desalinated.						
Groundwater Type	Potable or Non-Potable	Location or Basin Name	2021 (AF)	2022 (AF)	2023 (AF)	2024 (AF)	2025 (AF)
Total			0	0	0	0	0

6.3 Surface Water

The City does not have any surface water sources as part of its water supply.

6.4 Stormwater

The City has not identified any opportunities related to stormwater recapture to offset potable water use.

6.5 Wastewater and Recycled Water

The UWMPA requires that the UWMP address the opportunities for development of recycled water, including the description of existing recycled water applications, quantities of wastewater currently being treated to recycled water standards, limitations on the use of available recycled water, an estimate of projected recycled water use, the feasibility of said projected uses, and practices to encourage the use of recycled water.

6.5.1 Recycled Water Coordination

> *10633 The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.*

The City and NSD provide municipal wastewater and recycled water services within the City's water service area.

The City provides wastewater collection, treatment and disposal services as well as recycled water services within the City limits as well as the Extra Territorial Sewer Service Area (ETSSA) located north of the City. Note that the ETSSA excludes the Chardonnay Golf Course and the Napa County Airport.

NSD provides wastewater collection, treatment and disposal as well as recycled water services for the City of Napa and portions of unincorporated Napa County, including northern portions of the City's water service area.

The City's sewer/recycled water service area is shown in Figure 3-1.

6.5.2 Wastewater Collection, Treatment Systems, and Disposal

> *10633(a) (Describe) the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.*

6.5.2.1 Wastewater Collected within Service Area

The City's wastewater collection system consists of gravity pipelines, two force mains (the Main and Industrial Basins from the southern and northern ends of the City, respectively), and a series of pump stations. The wastewater is conveyed to the City's Water Reclamation Facility (WRF) (see Figure 3-1) for treatment.

NSD collects wastewater from the residents and businesses in the City of Napa, Silverado Country Club, the Napa County Airport, and several adjacent unincorporated areas, including northeastern portions of the City's water service area. The wastewater is conveyed to NSD's Soscol Water Recycling Facility (WRF), located outside the City's water service area northwestern border for treatment.

The 2025 wastewater flows from the City's service area is summarized in Table 6-2. As shown in Table 6-2, the City contributed 1,847 AFY of wastewater flow into the City's WRF and 120 AFY of wastewater flow into the NSD's Soscol WRF in 2025.

Table 6-2 Wastewater Collected Within Service Area

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area Water Code Section 10633(a)				
Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2025 (AF)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number	Is WWTP Located Within UWMP Area?
City of American Canyon	Metered	1,847	American Canyon Water Reclamation Facility (WRF) (formerly WWTP), Place ID 205477.	Yes
Napa Sanitation District	Estimated	120	Napa Sanitation District WWTP (Soscol Water Recycling Facility), Place ID 243858.	No
Total Wastewater Received from UWMP Service Area in 2025:		1,967		
Notes: WWTP – Wastewater Treatment Plant.				

6.5.2.2 Wastewater Treatment and Discharge within Service Area

The City owns, maintains, and operates the WRF. The WRF has a total wastewater treatment capacity of 2.5 mgd at average dry weather flow conditions and 5.0 mgd at peak wet weather flow conditions.

The WRF facilities consists of flow equalization and aeration, micro-screening, grit removal, biological secondary treatment, and membrane filtration, and disinfection and, for discharges at Discharge Point 001, post-discharge aeration. The secondary treatment system consists of four parallel biological treatment trains, each providing anoxic and aerobic biological treatment, and membrane filtration. The four treatment trains can be used to segregate domestic wastewater (Main Aeration Basin) from industrial wastewater (North Aeration Basin). The WRF has separate disinfection systems for treated wastewater discharges and recycled water. Domestic and industrial wastewater are typically combined before secondary treatment but may be segregated more frequently as recycled water production increases. Treated wastewater discharges are disinfected by ultraviolet light. Recycled water is disinfected using chlorine. Biosolids generated during the treatment process are stored in two sludge storage basins, until dewatered with a screw press and hauled to a landfill for disposal.

Treated wastewater discharges are regulated under National Pollutant Discharge Elimination System Waste Discharge Requirements (WDR) Order No. R2-2022-0019. Discharge is allowed to the North Slough on the Napa River (Discharge Point No. 001) and to two constructed freshwater wetlands that are tributary to the North Slough (Discharge Point No. 003). Treated wastewater is discharged from Discharge Point No. 001 during the wet season (November 1 through April 30) only. Treated wastewater is discharged from Discharge Point No. 003 year-round.

Table 6-3 identifies the volume of treated wastewater either recycled or disposed of within the service area in 2025.

Table 6-3 Wastewater Treatment and Outcomes Within UWMP Service Area

Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWMP Service Area Water Code Section 10633(b)														
Wastewater Treatment Plant Name and Place ID Number	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area?	2025 Volume of Wastewater Received from UWMP Service Area (AF)	Total 2025 Volume of Water Treated (AF)	**2025 Outcomes of Treated Wastewater**										
				Water Recycled Within UWMP Service Area		**Water Recycled Outside of UWMP Service Area**		**Effluent Discharge that is not a Permitted Recycled Water Use (Discharged Treated Wastewater)**		**Required Discharge for Instream Flow**		**Delivered to Another Entity for Additional Treatment**		
				Treatment Level	Volume (AF)	Treatment Level	Volume (AF)	Treatment Level	Volume (AF)	Treatment Level	Volume (AF)	Treatment Level	Volume (AF)	Name of other entity
American Canyon Water Reclamation Facility (WRF) (formerly WWTP), Place ID 205477	No	1,847	1,847	Tertiary	473		0	Secondary, Disinfected - 23	1,560		0		0	
Total		1,847	1,847		473		0		1,560		0		0	
NOTES: The volume of recycled water within the service area is treated to a tertiary level and is the metered amount sent to the recycled water system from the WRF. The volume of water treated is equal to the volume of wastewater collected in Table 6-2. Note that the sum of "2025 Outcomes of Treated Wastewater" does not equal to “Volume of Water Treated”, likely due to the error associated with estimating the volume of wastewater discharged.														

6.5.3 Recycled Water System Description

> *10633(c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.*

The City's WRF produces disinfected tertiary recycled water under the General Water Reuse Order (Order No. 96-011) per the recycled water criteria defined by the SWRCB Division of Drinking Water (DDW) under California Administrative Code, Division 4, Title 22, California Code of Regulations.

The City's recycled water distribution system includes approximately 14 miles of pipeline, a pump station, and two storage tanks with capacities of 1 MG and 1.5 MG.

6.5.4 Recycled Water Beneficial Uses

6.5.4.1 Current and Planned Uses of Recycled Water

> *10633(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.*
>
> *(d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.*
>
> *(e) 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 pursuant to this subdivision.*

The City currently produces and delivers recycled water to meet demand on an as-needed basis. The City provides recycled water to private customers for landscape irrigation, City-owned facilities for landscape irrigation, and temporary users for dust control at construction projects.

The current and projected recycled water uses are summarized in Table 6-4. The demand projections are based on the following assumptions for each use type:

- Landscape Irrigation: Assumed to be based on the 2025 demand plus the planned methods to expand future recycled water use (see Table 6-6).
- Dust Control at Construction Projects: Assumed to remain at the 2025 water use through 2050.

Table 6-4 Recycled Water Direct Beneficial Uses Within Service Area

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area Water Code Section 10633 (c),(d),(e)											
Name(s) of Facility/ies Producing (Treating) the Recycled Water:			City of American Canyon								
Name of Supplier Operating the Recycled Water Distribution System:			City of American Canyon								
Use Type	**Potable or Non-Potable** (after treatment if treated)	Additional Information (as needed)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)	**Potential Recycled Water Use**		
									Volume	Narrative page number (OPTIONAL)	
Agricultural irrigation	Non-Potable	Vineyard irrigation	0	0	0	0	0	0			
Landscape irrigation (exc golf courses)	Non-Potable	Landscape irrigation	465	###	###	###	###	###			
Other	Non-Potable	Dust control at construction sites	9	9	9	9	9	9			
Subtotal Potable			0	0	0	0	0	0	0		
Subtotal Non-Potable			473	9	9	9	9	9	0		
Total			473	9	9	9	9	9	0	0	

6.5.4.2 Planned Versus Actual Use of Recycled Water

The recycled water use projection for 2025 from the 2020 UWMP is compared to the 2025 actual use in Table 6-5.

Table 6-5 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual

Submittal Table 6-5 Retail: 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual Water Code Section 10633(e)		
Use Type	2020 Projection for 2025 (AF)	2025 Actual Use (AF)
Agricultural irrigation	68	0
Landscape irrigation (exc golf courses)	552	465
Golf course irrigation	0	0
Commercial use	0	0
Industrial use	0	0
Geothermal and other energy production	0	0
Seawater intrusion barrier	0	0
Recreational impoundment	0	0
Wetlands or wildlife habitat	0	0
Groundwater recharge (IPR)	0	0
Reservoir water augmentation (IPR)	0	0
Direct potable reuse (DPR)	0	0
Other (Description Required)	5	9
Total	625	473
NOTES: Other refers to dust control at construction sites.		

6.5.5 Actions to Encourage and Optimize Future Recycled Water Use

10633 The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier… and shall include the following:

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

Table 6-6 presents the City's planned methods to expand recycled water use and the associated expected increase in recycled water use. The City's Recycled Water Master Plan identified 15 capital improvement projects, which are labeled as RW1 through R15, to upgrade the City's recycled water system to serve projected buildout demands of nearly 1,000 AFY. Projects RW1, RW2, RW3, and RW8 have been completed.

Table 6-6 Methods to Encourage Future Recycled Water Use

Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use Water Code Section 10633(f)			
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Conversion of existing potable users	Convert existing potable water uses for landscape irrigation by connecting them to the existing recycled water network.	By 2019	137
RW4: Pelleria Drive	Extend pipeline to convert La Vigne Community Park to recycled water landscape irrigation.	By 2020	3
RW5: Jim Oswald Way / Mezzetta Court	Extend pipeline to convert existing potable users to recycled water landscape irrigation.	By 2019	18
RW6: Hanna Drive	Extend pipeline to convert existing potable users to recycled water landscape irrigation.	2021-2024	2
RW7: Dodd / Klamath Court	Extend pipeline to convert existing potable users to recycled water landscape irrigation.	2021-2024	7
RW9: Watson Lane RW10: Main / South Napa Junction Road RW11: Newell Drive	Extend pipeline to serve future landscape irrigation uses in Watson Ranch, undeveloped parcels north of Watson Lane and Canyon Estates developments.	2025-2034	266
RW12: Pump Station Upgrade	Upgrade the City's WRF Pump Station to support future connections when the total maximum month demand exceeds the existing pumping capacity (1,300 gallons per minute).	2025-2034	N/A
RW13: Paoli Loop Road / Northern Vineyards	Extend pipeline for irrigation of vineyards that currently receive raw water from the City.	2025-2034	105
RW14: Eucalyptus Drive RW15: Broadway / Donaldson Way	Extend pipeline to increase reliability and balance pressures across the distribution system and connection additional users.	2025-2034	40
Connection of future users	Use of recycled water by future development projects located within the existing recycled water network	2025-2034	205
Total (AF)			988
Unit Conversion to AF			988

6.6 Desalinated Water Opportunities

> *10631(d) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.*

The UWMPA requires that the UWMP address the opportunities for development of desalinated water, including ocean water, brackish water, and brackish groundwater.

At the present time, the City does not foresee any opportunities for the production of desalinated water. However, the City may pursue purchase of desalinated water if the supply became available through regional development.

6.7 Exchanges or Transfers

> *10631(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.*

The UWMPA requires the UWMP to address the opportunities for development of short or long-term transfer or exchange opportunities.

6.7.1 Exchanges

Water exchanges entail water being delivered by one water user to another water user, with the receiving water user providing water in return at a specified time or when the conditions of the parties' agreements are met.

The City does not have any existing or planned water exchanges. The City will continue to consider potential exchange opportunities.

6.7.2 Transfers

Water transfers entail a temporary or long-term change in the point of diversion, place of use, or purpose of use due to a transfer, sale, lease, or exchange of water or water rights.

The City does not have any existing or planned water transfers. The City will continue to consider potential transfer opportunities (such as one-time transfers from farmers who fallow fields and auction off their water).

6.7.3 Emergency Interties

The City does not have any emergency interties in which transfers of water can be made.

The City has interties with City of Vallejo (see Section 6.1.2) and an intertie with City of Napa (see Section 6.1.3.2).

6.8 Future Water Projects

> *10631(f) …The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in normal and single dry water years and for a period of drought lasting five consecutive water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.*

The UWMPA requires that suppliers describe water supply projects and programs that may be undertaken to meet the projected water demands.

As described previously, the City is 100 percent reliant on purchased or imported water for its potable water supply. In order to diversify its water sources and improve local control over the water supply, the City has been exploring various long-term water supply options based on the following evaluation criteria:

- Institutional: Is it within the City's operational authority?
- Technical: Can it be designed, operated, and maintained?
- Capacity: Will it meet anticipated demands now and in the future?
- Schedule: Can it be designed, built, and permitted in time to meet the City's requirements?
- Sustainability: Does it provide uninterrupted service without significant impacts?
- Affordability: Can it be built and maintained at a reasonable cost?
- Environmental: Is it consistent with local, state, and federal environmental regulations?
- Quality: Is the water quality satisfactory and reliable?

The City Council reviewed and discussed a preliminary list of long-term water supply options. Based on the criteria above, the City selected three options for further evaluation, including surface water storage at Lake Curry, groundwater production wells outside of City limits, and potable reuse of recycled water. Specific projects or programs have not been selected for implementation; therefore, these projects have not been added to Table 6-7.

In 2017, the City became a partner in the Sites Reservoir Project, an off-river up to 1.5 million AF reservoir that will capture excess water from major storms and save it for drier periods. The Sites Reservoir Project will be located 10 miles west of Maxwell in the Sacramento Valley. The project 2024 annual report is included in Appendix D.

In January 2026, the United States Department of Interior (DOI) approved the Record of Decision for the Sites Reservoir Project, which authorizes the United States Bureau of Reclamation to move forward consistent with applicable federal laws and regulations. See Appendix D for the DOI press release for additional information.

Table 6-7 contains the City's future water project.

Table 6-7 Expected Future Water Supply Projects or Programs

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs Water Code Section 10631(f)							
Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description (as needed)	**Potable or Non-Potable** (after treatment if treated)	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier (AF)
	(yes/no)	If Yes, Supplier Name					
Sites Reservoir	Yes	See Note 1		Potable	See Note 2	All Year Types	See Note 3
NOTES: (1) See Appendix D. (2) Construction is scheduled to begin in 2026. Sites Reservoir is anticipated to be operational at the end of 2033. (3) The current planned storage allocation for the City is 24,936 AF. Project is still in planning phase and storage allocation amount has not been finalized.							

6.9 Summary of Existing and Planned Sources of Water

10631(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a), providing supporting and related information, including all of the following…

(b)(2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies.

(h) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (f). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (f).

The actual source and volume of water for the year 2025 is presented in Table 6-8. As shown in Table 6-8, the City's total supply in 2025 was approximately 3,497 AFY.

Table 6-8 Water Supplies - Actual

Submittal Table 6-8 Retail: Water Supplies — Actual Water Code Section 10631(b)				
Water Supply	Additional Description (as needed)	**2025**		
		Potable or Non-Potable (after treatment if treated)	Actual Volume (AF)	Total Entitlement (OPTIONAL) (AF)
Purchased or Imported Water	State Water Project "Table A" Water	Potable	734	5,200
Purchased or Imported Water	State Water Project Article 21 Water	Potable	756	Varies
Purchased or Imported Water	Article 56 Carryover Water	Potable	1,075	Varies
Purchased or Imported Water	Table A Exchange Return Water	Potable	0	Varies
Purchased or Imported Water	Vallejo Permit Water, See Note 1	Potable	472	500
Purchased or Imported Water	Vallejo Permit Water, See Note 1	Non-Potable	28	
Purchased or Imported Water	Vallejo Treated Water	Potable	24	628.6
Purchased or Imported Water	Vallejo Emergency Water	Potable	133	500
Purchased or Imported Water	Napa Emergency Water	Potable	275	Varies
		Subtotal Potable	3,469	6,829
		Subtotal Non-Potable	28	0
		Total	3,497	6,829

NOTES: Refer to Table 6-4 for 2025 recycled water use.
(1) The City receives Vallejo Permit Water (raw water), which serves the Agricultural Irrigation raw water demand (see Table 4-1). The remainder of the raw water is treated.

The projected purchased or imported water supplies in Table 6-9 are based on historical deliveries of average (normal) years. The projected water supply in 5-year increments is included in Table 6-9.

Table 6-9 Water Supplies - Projected

Submittal Table 6-9 Retail: Water Supplies — Projected Water Code Section 10631 (b)												
Water Supply	Additional Detail on Water Supply	Potable or Non-Potable (after treatment if treated)	Projected Water Supply (Report to the Extent Practicable)									
			2030		2035		2040		2045		2050 (opt)	
			Reasonably Available Volume (AF)	Total Entitlement (AF)	Reasonably Available Volume (AF)	Total Entitlement (AF)	Reasonably Available Volume (AF)	Total Entitlement (AF)	Reasonably Available Volume (AF)	Total Entitlement (AF)	Reasonably Available Volume (AF)	Total Entitlement (AF)
Purchased or Imported Water.	State Water Project "Table A" Water.	Potable	2,808	5,200	2,808	5,200	2,808	5,200	2,808	5,200	2,808	5,200
Purchased or Imported Water.	State Water Project Article 21 Water.	Potable	568	Varies	568	Varies	568	Varies	568	Varies	568	Varies
Purchased or Imported Water.	Article 56 Carryover Water.	Potable	0	Varies	0	Varies	0	Varies	0	Varies	0	Varies
Purchased or Imported Water.	Table A Exchange Return Water.	Potable	0	Varies	0	Varies	0	Varies	0	Varies	0	Varies
Purchased or Imported Water.	Vallejo Permit Water, See Note 1.	Potable	472	500	472	500	472	500	472	500	472	500
Purchased or Imported Water.	Vallejo Permit Water, See Note 1.	Non-Potable	28		28		28		28		28	
Purchased or Imported Water.	Vallejo Treated Water.	Potable	628.6	628.6	628.6	628.6	628.6	628.6	628.6	628.6	628.6	628.6
Purchased or Imported Water.	Vallejo Emergency Water.	Potable	0	500	0	500	0	500	0	500	0	500
Subtotal Potable			4,476	6,829	4,476	6,829	4,476	6,829	4,476	6,829	4,476	6,829
Subtotal Non-Potable			28	0	28	0	28	0	28	0	28	0
Total			4,505	6,829	4,505	6,829	4,505	6,829	4,505	6,829	4,505	6,829

NOTES: The volume available for each supply are based on the assumptions for average year type in Section 7.3.1. Refer to Table 6-8 for projected recycled water.
(1) The City receives Vallejo Permit Water (raw water), which serves the Agricultural Irrigation raw water demand (see Table 4-2). The remainder of the raw water is treated.

6.10 Climate Change Impacts to Supplies

The CWC requires that suppliers consider climate change in their water supply analysis. The potential water supply effects related to climate change are discussed briefly in this section.

Because the City is 100 percent reliant on purchased or imported water for its potable water supply, the effects of climate change are best summarized by considering the effects of the region. The City has continued to participate in regional climate change studies, such as, the San Francisco Bay Area Integrated Regional Water Management Plan (IRWMP) (2019) that assess potential long-term impacts of climate change and mitigation and adaption strategizes. According to the IRWMP, climate change is expected to increase water supply variability and affect regional imported water supplies as follows:

- Total precipitation is expected to decrease in the Sierra Nevada sources.
- Snow pack projected to decrease from less storage in the mountains.
- Precipitation projected to shift toward more rain and less snow.
- Timing of runoff is expected to shift to earlier in the year, affecting reservoir storage and hydropower generation, especially in the spring and summer months.
- Sea-level rise may impact Delta water deliveries.

As scientific understanding of climate change continues to advance, the nature of these impacts and the impact on water supply availability and reliability will be thoroughly studied to identify proper mitigation and adaptation strategies.

One additional consideration for the City is the impact of wildfires on water quality. The wildfire season is typically followed by the rainy season and sometimes heavy precipitation, leading to high levels of sediment in runoff that can severely degrade water quality, such as the increase in turbidity levels. In addition, Per- and polyfluoroalkyl substances is also an emerging contaminant that can be found in firefighting foam that can stay and spread in the environment for decades and become a major contributor to drinking water contamination. With the increasing frequency of wildfires and atmospheric rivers across California, changes in treatment operations and/or treatment processes may be necessary to reliably treat and maintain water service to customers experiencing back-to-back impacts.

Additional details related to climate change data that have been collected using the Cal-Adapt tool are included in Chapter 3.

6.11 Energy Intensity

The 2025 UWMP guidebook requests that water suppliers provide information on the energy required to produce and distribute their water supply. Water energy intensity is the total amount of energy on a per acre-foot basis associated with water management processes occurring within the City's operational control.

6.11.1 Potable Water

The City has selected to report its energy intensity using the total utility approach Option B. In 2025, the City produced 2,235 AF of treated water entering the distribution system within its service area. The energy needed across the City's potable water system in 2025 was XXX,XXX kilowatt hours (kWh). The City's 2025 energy intensity is estimated at XXX kWh/AF (XXX kWh/MG). The energy intensity analysis (DWR Table O-1B) is located in Appendix E.

6.11.2 Wastewater and Recycled Water

In 2025, the City collected and treated 1,847 AF of wastewater within its service area. The energy needed to collect and treat the wastewater in 2025 was XXX,XXX kWh and XXX,XXX kWh, respectively. The City's 2025 wastewater (including recycled water) energy intensity is estimated at XXX kWh/AF (X,XXX kWh/MG). The energy intensity analysis (DWR Table O-2) is located in Appendix E.

6.11.3 Energy Savings Contract

The City prides itself on being leaders in environmental action, responsible growth and a sustainable future. The City installed solar photovoltaic systems in three locations, including at the City WRF, under an Energy Services Contract with OPTERRA Energy Services (dated May 22, 2020, and amended April 20, 2021). OPTERRA has guaranteed energy savings from the project for 20 years in accordance with the Contract. The actual savings for March 2021 through August 2025 was approximately $1,355,000. The energy savings from this program are not accounted for in DWR Table O-1B or DWR Table O-2.

CHAPTER 7 WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

The UWMPA requires that the UWMP address the reliability of the agency's water supplies. This includes supplies that are vulnerable to seasonal or climatic variations. In addition, an analysis must be included to address supply availability in a single-dry-year and in a five-consecutive-year drought.

> *10635(a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.*

7.1 Introduction

The City potable water supply is purchased or imported water sources, mainly SWP water (from the Delta) purchased from the Napa County FCWCD and from the City of Vallejo. Refer to Appendix A for the City's demonstration of reduced Delta reliance.

The following factors affect water supply reliability and may pose an opportunity for inconsistency in supply.

- Legal: The SWP contract expires in 2035 with provisions for extensions. The agreement with Vallejo does not have an expiration; however, Vallejo Treated Water must be purchased annually by a specific date.
- Environmental: The United States Fish and Wildlife Service and the National Marine Fisheries Service have operational rules that limit exports from the Delta for protection of several fish species (such as the Delta Smelt) per the Endangered Species Act.
- Water Quality: The SWRCB has established salinity and other water quality objectives that can limit exports from the Delta.
- Climatic: Drought conditions can limit exports from the Delta.

7.2 Constraints of Water Sources

> *10631(b)(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.*

There are two aspects of supply reliability that can be considered. The first relates to immediate service needs and is primarily a function of the availability and adequacy of the supply facilities. The second aspect is climate-related and involves the availability of water during mild or severe drought periods.

There are a variety of factors that can affect water supply reliability. The factors that might result in supply reliability issues include water quality and climatic changes.

7.2.1 Water Supply Quality

The UWMPA requires that the UWMP include a discussion of water quality impacts on the reliability of an agency's water supplies. As indicated in Section 7.1, water quality may affect Delta supply reliability.

The City's drinking water meets all applicable water quality regulations. The Annual Consumer Confidence Report for the City's service area in year 2024 can be found in Appendix F.

7.2.2 Climate Change

Climate change is likely to add uncertainties to supply planning and future supply availability. Considering reductions in per capita use and projected demands, the City continues to balance a cautious optimism with a long-term strategy for sustainable sources of supply.

As stated in Chapter 4, the altered climate patterns in California creating hotter days and longer heat waves will increase customer water use and evaporative water losses. Extended drought periods are expected to become both more frequent, and more severe, which could lead to reduced rainfall and snowpack. Higher temperatures and decreased precipitation will result in drought, making wildfires more frequent, more severe, and harder to fight with less water supplies. Wildfires, followed by flooding, mean more landslides and mudslides, further impacting water supply reliability. Creating defensible space as well as slope stabilization and erosion prevention near critical infrastructure will be important for preserving supplies.

Efficient use of water is paramount in the City's effort to adapt to climate change. Technology and equipment to appropriately monitor and manage water supplies will be critical. Ensuring that pipes are appropriately sized and upgraded to minimize water loss is equally important. Redundancy in source of supply will provide operational flexibility in the event supplies are interrupted by fire, floods, earthquakes, or drought. Climate change effects such as drought, wildfire, and temperature fluctuations may all contribute to a degradation of water quality over time.

7.2.3 Potential Supply Constraints

This section considers the State's programs that could impact water management planning in the future.

7.2.3.1 Sacramento Water Allocation Model

Sacramento Water Allocation Model (SacWAM) is a hydrologic and system operations model developed by the Stockholm Environment Institute and SWRCB to assess potential revisions to instream flow and other requirements in the Bay-Delta watershed, including the current Sacramento/Delta review and update of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan).

Stream flows estimated by SacWAM may be used to inform various types of analyses as part of the SWRCB's assessment of potential alternative regulatory requirements:

- Estimates of flow conditions under a range of alternative regulatory requirements.
- Estimates of changes in water diversions for use in an evaluation of the impacts of alternative regulatory requirements on agricultural resources, water suppliers, and groundwater.
- Estimates of changes in reservoir storage for use in an analysis of the impacts of alternative regulatory requirements on hydropower generation, recreation, fisheries and water supply.
- To inform other analyses or models, such as delta hydrodynamics, temperature and economic.

Refer to www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/sacwam/ for additional information.

7.2.3.2 Incidental Take Permit

The 2024 SWP Incidental Take Permit (ITP) was issued by the California Department of Fish and Wildlife. The permit covers five species protected under the California Endangered Species Act, including Delta smelt, longfin smelt, white sturgeon, winter-run Chinook salmon and spring-run Chinook salmon. The ITP regulates pumping plant exports, including the Barker Slough Pumping Plant (BSPP), through 2034. The BSPP diverts water from Barker Slough into the NBA.

Refer to https://cwc.ca.gov/Home/News/News-Releases/2024/Nov-24/New-Operating-Permit-Issued-for-Californias-State-Water-Project for additional information.

7.2.3.3 North Bay Aqueduct Alternative Intake Project

DWR proposes to construct and operate an alternative intake on the Sacramento River and connect it to the existing NBA system by a new segment of pipe. The proposed alternative intake would be operated in conjunction with the existing NBA intake at Barker Slough. The proposed project would be designed to improve water quality and to provide reliable deliveries of SWP supplies to its contractors, including the Napa County FCWCD.

Refer to https://viewperformance.deltacouncil.ca.gov/index.php/pm/north-bay-aqueduct for additional information. The NBA alternative intake project is currently on hold.

7.2.4 Potential Alternative Sources

The City also uses other supplemental imported water sources as described in Section 6.1.3. The availability of these supplemental water supplies varies from year-to-year; therefore, supplemental water supplies have not been included in this water supply reliability assessment.

In order to diversify its water sources and improve local control over the water supply, the City has been exploring various long-term water supply options as described in Section 6.8.

7.3 Water Supply Reliability by Type of Year

This section considers the City's water supply reliability during three water scenarios: average year, single-dry-year, and five-consecutive-year drought. An average year is also referred to as a "normal" year.

These scenarios are defined as follows:

- Average Year: A year, or an averaged range of years, that most closely represents the average water supply available to the City. Generally, a year in the historical sequence that most closely represents median runoff levels and patterns. It is defined as the median runoff over the previous 30 years or more. This median is recalculated every 10 years.
- Single-Dry-Year: The year that represents the lowest water supply available to the City. Generally considered to be the lowest annual runoff for a watershed since the water-year beginning in 1903. Suppliers should determine this for each watershed from which they receive supplies.
- Five-Consecutive-Year Drought: The period that represents the driest five-year historical sequence for the City. Generally considered to be the lowest average runoff for a five-consecutive-year period for a watershed since 1903.

7.3.1 Basis of Water Year Data

Table 7-1 contains the water supply available for each of the water year types, as a percentage of the average water year, but the water type years have not been included. The volume available for each year type are based on the following assumptions:

- "Table A" Allotment: Assumed to be 54 percent, 5 percent, and 27 percent of the full contracted volume (5,200 AFY) for average, single-dry, and five-consecutive-year drought water types, respectively. The percent volume available for each water year type is based on the long-term average allocation (2025 Draft State Water Project Final Delivery Capability Report, DWR), 2014 allocation, and 1987 to 1992 average allocation, respectively.
- Article 21 Water: Assumed to be 568 AFY, 0 AFY, and 216 AFY for average, single-dry, and five-consecutive-year drought water types, respectively. This is based on the 2012 to 2020 average allocation, 2014 allocation, and 2012 to 2016 average allocation, respectively.
- Vallejo Permit Water: Assumed to be the full contracted volume (500 AFY) for all water year types.
- Vallejo Treated Water: Assumed to be full contracted volume (628.6 AFY) for average year water type and to be reduced by 20 percent for single-dry and consecutive dry year water types based on City of Vallejo's WSCP Stage 2.
- Vallejo Emergency Water: Assumed to be 0 AFY for average year water type (not available when the City's "Table A" allotment is not curtailed) and full contracted volume (500 AFY) for single-dry and consecutive dry years water types.

Table 7-1 Basis of Water Year Data (Reliability Assessment)

***Optional* Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)**			
Year Type	Base Year	Quantification of Available Supplies	
		Volume Available (AF)	% of Average Supply
Average Year.	See notes	4,505	100%
Single-Dry Year.	See notes	1,763	39%
Consecutive Dry Years 1st Year.	See notes	3,123	69%
Consecutive Dry Years 2nd Year.	See notes	3,123	69%
Consecutive Dry Years 3rd Year.	See notes	3,123	69%
Consecutive Dry Years 4th Year.	See notes	3,123	69%
Consecutive Dry Years 5th Year.	See notes	3,123	69%
NOTES: Base years vary by source. See narrative in Section 7.3.1 for details on base years.			

7.4 Water Service Reliability Assessment

> *10635(a). Every urban water Supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.*

The projected demand and supplies are compared in 5-year increments in Table 7-2, Table 7-3, and Table 7-4 for the three scenarios defined above. The demand is based on the total water use from Table 4-2. The supply is based on the reasonably available volume from Table 6-9. The supply is adjusted by the percent of average supply for the year type from Table 7-1.

7.4.1 Normal Year

Table 7-2 provides an estimate of the projected normal year supply and demand totals.

Table 7-2 Normal Year Supply and Use Comparison

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 (AF)
Supply totals (from Submittal Table 6-9 R)	4,505	4,505	4,505	4,505	4,505
Use totals (from Submittal Table 4-2 R)	2,381	2,448	2,514	2,581	2,647
Surplus/(shortfall)	2,123	2,057	1,990	1,924	1,857

7.4.2 Single-Dry-Year

Table 7-3 provides an estimate of the projected single-dry-year supply and demand totals. As shown in Table 7-3, the City anticipates it can augment supply during a shortfall using existing water purchase agreement contracts. Demand reductions due to water shortage stage rationing measures are not included in the single-dry-year demand estimates (refer to Table 8-3).

Table 7-3 Single Dry Year Supply and Use Comparison

Submittal Table 7-3 Retail: Single Dry Year Supply and Use Comparison Water Code Section 10635(a)					
	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals.	1,763	1,763	1,763	1,763	1,763
Use totals.	2,381	2,448	2,514	2,581	2,647
Surplus/(shortfall).	(618)	(685)	(752)	(818)	(885)
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit.	618	685	752	818	885
WSCP - use reduction savings benefit.	0	0	0	0	0
Revised Surplus/(shortfall).	0	0	0	0	0
NOTES: The demand is based on the total water use from Table 4-2. The supply is based on the reasonably available volume from Table 6-9. The supply is adjusted by the percent of average supply for the year type from Table 7-1.					

7.4.3 Five-Consecutive-Year Drought

Table 7-4 provides an estimate of the projected five-consecutive-year drought supply and demand totals. The City anticipates it can augment supply during a shortfall, as needed, using existing water purchase agreement contracts. Demand reductions due to water shortage stage rationing measures are not included in the five-consecutive-year drought demand estimates (refer to Table 8-3).

Table 7-4 Multiple Dry Years Supply and Use Comparison

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 (AF)
First year	Supply totals.	3,123	3,123	3,123	3,123	3,123
	Use totals.	2,381	2,448	2,514	2,581	2,647
	Surplus/(shortfall).	742	675	608	542	475
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit.	0	0	0	0	0
	WSCP - use reduction savings benefit.	0	0	0	0	0
	Revised Surplus/(shortfall).	742	675	608	542	475
Second year	Supply totals.	3,123	3,123	3,123	3,123	3,123
	Use totals.	2,381	2,448	2,514	2,581	2,647
	Surplus/(shortfall).	742	675	608	542	475
	OPTIONAL WSCP Actions.					
	WSCP - supply augmentation benefit.	0	0	0	0	0
	WSCP - use reduction savings benefit.	0	0	0	0	0
	Revised Surplus/(shortfall).	742	675	608	542	475
Third year	Supply totals.	3,123	3,123	3,123	3,123	3,123
	Use totals.	2,381	2,448	2,514	2,581	2,647
	Surplus/(shortfall).	742	675	608	542	475
	OPTIONAL Planned WSCP Actions.					
	WSCP - supply augmentation benefit.	0	0	0	0	0
	WSCP - use reduction savings benefit.	0	0	0	0	0

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 (AF)
	Revised Surplus/(shortfall).	742	675	608	542	475
Fourth year	Supply totals.	3,123	3,123	3,123	3,123	3,123
	Use totals.	2,381	2,448	2,514	2,581	2,647
	Surplus/(shortfall).	742	675	608	542	475
	OPTIONAL Planned WSCP Actions.					
	WSCP - supply augmentation benefit.	0	0	0	0	0
	WSCP - use reduction savings benefit.	0	0	0	0	0
	Revised Surplus/(shortfall).	742	675	608	542	475
Fifth year	Supply totals.	3,123	3,123	3,123	3,123	3,123
	Use totals.	2,381	2,448	2,514	2,581	2,647
	Surplus/(shortfall).	742	675	608	542	475
	OPTIONAL Planned WSCP Actions.					
	WSCP - supply augmentation benefit.	0	0	0	0	0
	WSCP - use reduction savings benefit.	0	0	0	0	0
	Revised Surplus/(shortfall).	742	675	608	542	475
NOTES: The demand is based on the total water use from Table 4-2. The supply is based on the reasonably available volume from Table 6-9. The supply is adjusted by the percent of average supply for the year type from Table 7-1.						

7.4.4 Hazard Mitigation Plan

Napa County's Multi-Jurisdictional Hazard Mitigation Plan is available for review at https://mitigatehazards.com/napa-county-mjhmp/documents/. Refer to Section 8.7 for additional details.

7.5 Drought Risk Assessment

> *10635(b) Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following…*
>
> *(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period. [Emphasis added]*
>
> *(4) 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.*

Table 7-5 presents a summary of the City's water supply DRA from 2026 through 2030 The supplies are based on the following conservative assumptions:

- "Table A" Allotment: Assumed to be 22 percent of the full contracted volume (5,200 AFY) for all years. The percent volume available is based on the 6-year drought allocation of 22 percent in the Draft 2025 Draft State Water Project Final Delivery Capability Report, DWR.
- Article 21 Water: Assumed to be 242 AFY the first year and then unavailable the remaining years based on.
- Vallejo Permit Water: Assumed to be the full contracted volume (500 AFY) for all years.
- Vallejo Treated Water: Assumed to be the contracted volume (628.6 AFY) reduced by 20 percent for all years based on City of Vallejo's WSCP Stage 2.
- Vallejo Emergency Water: Assumed to be full contracted volume (500 AFY) for all years.

As shown in Table 7-5, the City anticipates it can supply all its water demands by purchasing supplemental imported water through existing agreements through the planning horizon (2030). Use reduction savings are not quantified in Table 7-5 (refer to Table 8-3).

Table 7-5 Five-Year Drought Risk Assessment

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)	
2026	Total
Total Water Use (AF)	2,264
Total Supplies (AF)	5,801
Surplus/Shortfall w/o WSCP Action	3,536
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	0
WSCP - use reduction savings benefit (AF)	0
Revised Surplus/(shortfall)	3,536
2027	Total
Total Water Use (AF)	2,294
Total Supplies (AF)	5,559
Surplus/Shortfall w/o WSCP Action	3,265
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	0
WSCP - use reduction savings benefit (AF)	0
Revised Surplus/(shortfall)	3,265
2028	Total
Total Water Use (AF)	2,323
Total Supplies (AF)	5,559
Surplus/Shortfall w/o WSCP Action	3,236
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	0

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)	
WSCP - use reduction savings benefit (AF)	0
Revised Surplus/(shortfall)	3,236
2029	Total
Total Water Use (AF)	2,352
Total Supplies (AF)	5,559
Surplus/Shortfall w/o WSCP Action	3,207
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	0
WSCP - use reduction savings benefit (AF)	0
Revised Surplus/(shortfall)	3,207
2030	Total
Total Water Use (AF)	2,381
Total Supplies (AF)	5,559
Surplus/Shortfall w/o WSCP Action	3,178
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	0
WSCP - use reduction savings benefit (AF)	0
Revised Surplus/(shortfall)	3,178

7.6 Regional Supply Reliability

> *10620(f) an urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.*

The City is expanding the use of local water resources (recycled water, see Section 6.5.5) and reducing waste through the implementation of DMMs (see Chapter 9). The City's efforts help to reduce the need to purchase water from other agencies.

CHAPTER 8 WATER SHORTAGE CONTINGENCY PLAN

In response to the severe drought of 2012-2016, legislation in 2018 created a WSCP mandate replacing the water shortage contingency analysis under former law. The new requirements are more prescriptive to have consistency throughout California. The City Municipal Code Water Conservation Plan Chapter 13.14, included in Appendix G, serves as the City's WSCP and may be amended as needed without amending this 2025 UWMP.

In the event any provision of this Chapter or the Water Conservation Plan (Appendix G) conflicts or overlaps with any mandatory State regulation related to water conservation, the most stringent shall apply.

8.1 WSCP Overview

The City's WSCP details the stages of actions to be taken during a reduction in available water supply. These actions are broken up based upon six possible stages of water shortage. Reductions in supply are most frequently associated with drought, but could also be the result of flooding, major fire emergencies, earthquakes, regional power outages, water contamination, and any other situation that could impact the City's water supply.

The goal of a WSCP is to have a procedure for managing and mitigating shortages allowing the City to respond in an efficient and timely manner. Water shortage response actions include supply augmentation, demand reduction, operational changes, and mandatory prohibitions to address shortage levels. The following sections summarize the City's water shortage stages and the measures employed during each stage, as outlined in the WSCP.

8.2 Stages of Action

The stages of action in response to water supply shortages for the City are as follows:

- Level 1: Voluntary Conservation.
- Level 2: Water Alert.
- Level 3: Water Emergency.
- Level 4: Critical Water Emergency.
- Level 5: Severe Water Emergency.
- Level 6: Catastrophic Interruption of Water Supplies.

The City uses the standard six levels of water shortage and corresponding percent shortage range, including greater than 50 percent reduction in water supply, therefore Table 8-1 is left blank. Detailed descriptions of each stage of action are included in the Water Conservation Plan (Appendix G).

Table 8-1 Cross Reference for Standard vs. Supplier Shortage Levels

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%		
2	Up to 20%		
3	Up to 30%		
4	Up to 40%		
5	Up to 50%		
6	>50%		

8.3 Supply Augmentation

The UWMPA requires that the UWMP include an urban water shortage contingency analysis that addresses methods to reduce consumption.

Table 8-2 contains supply augmentation methods and other actions by water shortage stage. Expanding the public information campaign is an effective first step to reduce consumption before implementing emergency supply augmentation.

Table 8-2 Supply Augmentation and Other Actions

Submittal Table 8-2 Retail: Supply Augmentation and Other Actions Water Code Section 10632(a)(4)(A),(C) and (E)				
Yes	Is the Supplier completing this table using the standard six levels? (yes/no)			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?		Additional Explanation or Reference
		Volume or Percentage	Shortage Gap Reduction Value (May be a range) (AF)	
2-6	Other Purchases.	Volume	Varies	Dry year agreements and turnback pool purchases vary by year.
1-6	Expand Public Information Campaign.	Percentage	<5%	
2-6	Other Actions (describe).	Percentage	<5%	Offer Water Use Surveys.
1-6	Other Actions (describe).	Percentage	<5%	Decrease Line Flushing.
3-6	Other Actions (describe).	Percentage	<5%	Increase Water Waste Patrols.
4-6	Other Actions (describe).	Percentage	<5%	Moratorium or Net Zero Demand Increase on New Connections.
5-6	Other Actions (describe).	Percentage	0%	Refer to description of previous supply augmentation methods and actions.
6	Other Actions (describe).	Percentage	0%	Refer to description of previous supply augmentation methods and actions.

8.4 Demand Reduction

Table 8-3 contains demand reduction actions and the water shortage stage when they are enacted. These prohibitions are detailed in the Water Conservation Plan (Appendix G). Additionally, the City Municipal Code contains the Water Waste Prohibitions Ordinance (Section 13.14.060) (see Appendix G). This Water Waste Prohibitions Ordinance is in place at all times and is not dependent upon a water shortage for implementation. Although it is difficult to estimate the volume of savings for each action, the City expects to meet required reductions through a combination of response actions in conjunction with outreach and communication efforts to the extent necessary to mitigate any impacts from a water shortage.

Table 8-3 Demand Reduction Actions

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B),(D), and (E)					
Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (May be a range) (AF)		
1-6	Landscape - Limit landscape irrigation to specific times.	Percentage	<5%		No
1-6	Provide Rebates on Plumbing Fixtures and Devices.	Percentage	<5%		
1-6	Other.	Percentage	<5%		No
2-6	Landscape - Prohibit certain types of landscape irrigation.	Percentage	<5%		Yes
2-6	Other.	Percentage	<5%		Yes
2-6	Other - Prohibit use of potable water for washing hard surfaces.	Percentage	<5%		Yes
2-6	Landscape - Prohibit certain types of landscape irrigation.	Percentage	<10%		Yes
2-6	Other water feature or swimming pool restriction.	Percentage	<5%		Yes
2-6	Water Features - Restrict water use for decorative water features, such as fountains.	Percentage	<5%		Yes
3-6	Landscape - Other landscape restriction or prohibition.	Percentage	<5%		Yes

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B),(D), and (E)					
Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?		Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
		Volume or Percentage	Shortage Gap Reduction Value (May be a range) (AF)		
4-6	Other.	Percentage	<5%		Yes
4-6	CII - Other CII restriction or prohibition.	Percentage	<5%		Yes
5-6	Other.	Percentage	<10%		Yes
6	Other.	Percentage	0%	Refer to description of previous demand reduction actions.	Yes
1-6	Other.	Percentage	5%	Prohibition on CII Nonfunctional Turf Irrigation (phased between 2027 and 2029).	Yes
NOTES: Refer to City Municipal Code Water Conservation Plan Chapter 13.14 for details on demand reduction actions.					

8.5 Annual Water Supply and Demand Assessment Procedures

The annual water supply and demand assessment identifies key data and methods for determining the supply reliability each year. The annual assessment is due to DWR on or before July 1 of each year, as required by CWC Section 10632.1. The assessment assumes the year following the planning calendar year is a dry year.

The annual supply and demand assessment will include:

- Anticipated shortage.
- Triggered shortage response actions.
- Compliance and enforcement actions.
- Communication actions.
- Review of assets.

8.5.1 Timeline

The timeline for the annual supply and demand assessment is listed below and is subject to change.

- Preparation of draft supply and demand analysis – February.
- Submit and present assessment to City Manager – March.
- Update and finalize assessment – April.
- Receive City Manager approval – May or June.
- Annual supply and demand assessment – Due to DWR July 1.

8.5.2 Decision-Making Process

The steps in the decision-making process that the City will use each year to determine and subsequently report to the state are listed below.

1. Determine supply available, infrastructure constraints, and expected demand.
2. Compare supply and demand and decide on the water supply reliability for the current year and one dry year.
3. Present the findings and recommendations of the Annual Assessment Report to the City Manager.
4. Prepare and submit the Annual Assessment Report to the state.
5. Determine the shortage levels and other conservation matters, including, but not limited to any restrictions in the number of new service connections allowed annually for any or all portions of the City service area.
6. Maintenance and Utilities Director or a designated representative implements the provisions of the WSCP.

8.5.3 Key Data and Methodologies

The key data inputs and assessment methodology used to evaluate the City's water supply reliability for the current year and one dry year, include the following:

- Current year unconstrained demand, considering weather, growth, building permit trends, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.
- Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the City.
- Existing infrastructure capabilities and plausible constraints.
- A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.
- A description and quantification of each source of water supply.
- The California Drought Monitor.
- Precipitation on a calendar and weather year basis.
- Any potential State or regional actions related to drought and water use restrictions.

8.5.3.1 Water Supply

The annual assessment will evaluate the current year available and one subsequent dry year. The available water supplies for the City shall be quantified each year by summing the available water supplies. Potential production constraints, hydrological, and regulatory conditions will be considered.

8.5.3.2 Unconstrained Customer Demand

Water demand/consumption for the previous year shall be quantified by summing the meter usage of each customer class for the previous year. Customer water demands shall be projected for the upcoming year based on the previous year's water consumption and the projected population growth.

8.5.3.3 Planned Water Use for Current Year Considering Dry Subsequent Year

The planned water use for the current year is not impacted by an anticipated subsequent dry year. When SWP or Vallejo supplies are reduced, the City can purchase supplemental imported water sources.

8.5.3.4 Infrastructure Considerations

Infrastructure projects anticipated for the upcoming year that could impact water supply will be evaluated for the timeframe the projects will impact supply. The available water supply will be increased or reduced accordingly for each month.

8.5.3.5 Evaluation Criteria

Evaluation of the appropriate shortage level will include, but not be limited to, the following considerations:

- Current and recent trends in Delta levels.
- Other hydrological or other local conditions indicative of water supply available.
- Previous winter's precipitation.
- Previous year's water demand.
- Current and anticipated demand for water by City customers.
- Current and anticipated supply of City water sources.
- Damage to the City's water system.
- Predicted weather patterns.
- Water content of the snowpack.
- Climate change impacts.
- California Drought Monitor.
- Current or pending state and regional water use efficiency or drought related actions.

If the available water supply is greater than the anticipated customer demand for the upcoming year, then the City does not need to take any further action. If the anticipated customer demand for the upcoming year is greater than the available water supplies, or that additional conditions exist (such as a State declared drought emergency), the City can initiate water conservation actions as detailed in the WSCP.

8.5.3.6 Triggering Mechanisms for Shortage Levels

The triggering mechanisms to use as guidelines for the shortage levels include:

- System malfunction resulting in up to the percent shortage of a level or catastrophic interruption of water supplies.
- City or state declaration due to drought.
- Federal, state, or local disaster declaration that may impact water supplies.
- City determination.
- Unplanned City water system maintenance.

The City may impose any of the shortage levels based upon facts and circumstances which may not have been otherwise anticipated in this chapter or WSCP.

8.6 Catastrophic Supply Intervention

The UWMPA requires that the City develop stages of action to be undertaken during a catastrophic interruption of water supply or the City's water treatment facilities that could include flooding, major fire emergencies, regional power outage, an earthquake, water contamination, and acts of sabotage. In response to these possibilities, the City developed an Emergency Response Plan (ERP), which identifies the following goals:

- Rapidly restoring water service after an emergency.
- Ensuring adequate water supply for fire suppression.
- Minimizing water system damage.
- Minimizing impact and loss to customers.
- Minimizing negative impacts on public health and employee safety.
- Providing emergency public information concerning customer service.

The ERP includes emergency planning process and water system information, including mutual aid agreements, emergency resources, emergency water supply calculations, and information on alternate water supplies. The ERP also contains emergency response chain-of-command information, concepts of operation, response and notification procedures, water quality sampling procedures, emergency response training, and action plans.

8.7 Hazard Mitigation Plan

The City is located in the seismically active San Francisco Bay region. The City's main water transmission main is located less than a half mile from the West Napa Fault; however, all components of the City's water system are vulnerable to seismic activity.

Napa County is in the process of updating the Multi-Jurisdictional Hazard Mitigation Plan. Refer to https://mitigatehazards.com/napacountymjhmp/ for updates. The Hazard Mitigation Plan may be updated at any time. The most recent Hazard Mitigation Plan shall apply to the current WSCP.

8.8 Revenue and Expenditure Impacts

The City is fully metered, and City customers are billed volumetrically. Therefore, the City may experience a decrease in revenue with reduced water sales during a water shortage. Although the variable costs of supplying water will be reduced as water usage decreases, the fixed costs will remain constant. The variable costs are linked to the purchase of imported water. The fixed costs include plant operations, salaries, debt service, capital projects, and other similar expenses.

Additional costs during water shortage situations could be associated with increased monitoring, efficiency incentives, and outreach, namely due to an increase in the hours required to monitor customer accounts and enforce reduction actions. The additional costs associated with this effort, however, are not expected to significantly impact revenues and expenditures.

To overcome a reduction in revenue due to a water shortage the City could adjust the water rates or develop a reserve fund.

8.8.1 Use of Financial Reserves

The City has funding reserves established that can be utilized for a financially qualifying event, such as providing for the continued operation of the water system in the event of a decline in water service revenue.

8.8.2 Other Measures

The City will consider postponement of capital improvements and operational measures to temporarily reduce power and chemical costs as a means to overcome impacts from water shortage contingency planning to revenues and expenditures.

8.9 Monitoring and Reporting

The City is fully metered, and City customers are billed volumetrically. The City uses these meters to monitor City-wide use, individual customer use, and track actual reductions in water use. By periodic review of customer water use, the City is able to track the effectiveness of the shortage level reduction actions, educate customers regarding water use, and also identify leaks and other areas where additional conservation may be possible.

Monitoring will be used to ensure appropriate data is collected, tracked, and analyzed for purposes of determining:

- Customer compliance.
- Effectiveness of reduction actions.
- Potential leaks in the distribution system.
- Accurate monthly demand data for the annual supply and demand assessment.

Monitoring and reporting key water use metrics is fundamental to water supply planning and management and will be a critical part of the annual supply and demand assessment. Monitoring is also essential to ensure that the shortage level response actions achieve their intended water use reduction purposes or to determine if improvements or new actions are needed. Monitoring for customer compliance tracking is useful in enforcement actions. It should be noted that timing, frequency, and metrics will likely be variable, depending on the water shortage level and enforcement action logistics.

The City can compare meter data with water use in prior months and during non-drought years to determine if it is achieving specific percentage goals for water consumption associated with the drought response levels. If the goals are not being met, the City can implement additional shortage response actions at any time.

8.10 WSCP Refinement Procedures

To evaluate the effectiveness of the WSCP and to ensure that procedures and practices developed under the WSCP are adequate and are being implemented properly, the City will perform audits of the program on a periodic basis, at least every 5 years in coordination with the UWMP update.

The City will perform a thorough review of monitoring and reporting program data to determine the effectiveness of the reduction actions and whether the procedures and provisions of the WSCP need to be

revised. The review will compare the expected percent demand reduction against actual reductions and shortage response actions.

City staff, customers, and other interested parties may have suggested actions or procedures to refine the WSCP. The City will evaluate these on a case-by-case basis for incorporation into the WSCP.

8.11 WSCP Adoption, Submittal, and Availability

Per the CWC, the following steps shall be performed prior to adoption of the WSCP:

- The City will issue a notification of a public hearing to customers, the county, and public.
  - The City will publish notification of the public hearing in a local newspaper for two consecutive weeks.
  - The City shall hold a public hearing to obtain public input.
  - Following the public hearing or a subsequent meeting, the City Council shall formally adopt the WSCP.
  - Per CWC Section 10632 (a)(c), the City will make the WSCP available on the City's website (www.americancanyon.gov) within 30 days of the adoption.
- The City may choose to amend the WSCP at any time. If so, each of the steps above must be followed.

CHAPTER 9 DEMAND MANAGEMENT MEASURES

The UWMPA requires that the UWMP involve a comprehensive discussion of the agency's water conservation measures.

> *10631(e)(1)(A) …The narrative shall describe the water demand management measure that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.*
>
> *(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:*
>
> *(i) Water waste prevention ordinances.*
>
> *(ii) Metering.*
>
> *(iii) Conservation pricing.*
>
> *(iv) Public education and outreach.*
>
> *(v) Programs to assess and manage distribution system real loss.*
>
> *(vi) Water conservation program coordination and staffing support.*
>
> *(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.*

This chapter presents details of the DMMs contained in the UWMPA, as well as the City's existing and planned efforts to further develop their water conservation program. The City is committed to water conservation and has implemented several policies and on-going programs that promote and encourage water conservation.

The UWMPA was amended in 2014 to streamline DMMs from 14 specific measures to six more general requirements and an "other" category. Brief descriptions of the City's current and planned implementation of DMMs are included in the following sections.

9.1 Water Waste Prevention Ordinances

This DMM involves adoption of an ordinance prohibiting water waste. The City Municipal Code contains the Water Waste Prohibitions Ordinance (Section 13.14.060) (see Appendix G). This Water Waste Prohibitions Ordinance is in place at all times and is not dependent upon a water shortage for implementation. See Chapter 8 and the Water Conservation Plan Chapter 13.14 (Appendix G) for detailed information on stages of action, prohibitions of end uses, and penalties.

In addition, the City Municipal Code Chapters 16.14 (Water-Efficient Landscaping under Building and Construction Codes) and 19.22 (Water-Efficient Landscaping under Zoning) summarize additional ongoing conservation efforts of the City (see Appendices H and I).

9.1.1 Implementation over the Past Five Years

The City has recorded water waste violations over the past five years.

9.1.2 Planned Implementation

The City will continue to enforce this DMM. The effectiveness of this DMM will be evaluated by monitoring the number of warnings and offenses. If an area is determined to have excessive violations, the City could implement a specific public outreach program informing the public about the Water Waste Prohibitions Ordinance.

9.2 Metering

Installing water meters and billing for actual water use provides a strong incentive for customers to use less water and equalizes service cost for each customer to their actual use (high water users would pay a more equitable share of the system costs). Water metering can reduce exterior landscape water use and can also achieve a modest reduction in interior water use.

9.2.1 Implementation Over the Past Five Years

All of the City customers are metered and are billed on a monthly basis. In addition, the City supply turnouts are also metered.

The City uses Advanced Metering Infrastructure (AMI) to help conserve and prevent water loss. To empower community members, the City provides a Customer Water Usage Portal through AMI to offer complete transparency over the individual volume of water consumed. This intelligent tool has several capabilities, including daily, weekly, and monthly water tracking, comparison data, and the ability to set up alerts to notify customers of high water consumption.

9.2.2 Planned Implementation

The best way to evaluate the effectiveness of metering is periodic review of customer water use. The City could contact individual customers determined to have high water use.

The City will implement performance measures for CII water use, as required by the *Making Conservation a California Way of Life* regulation, including a classification system, use of dedicated irrigation meters (DIMs) or "in-lieu" water management technologies for qualifying large landscapes, and BMPs for qualifying customers.

9.3 Conservation Pricing

Water conservation is encouraged through a pricing system that rewards customers who use less water with financial incentives, while high water users are charged a higher rate. Often this is implemented through a tiered pricing system.

9.3.1 Implementation Over the Past Five Years

The City has an increasing-tier water rate schedule for single-family residential use. These metered water rates consist of a fixed meter charge as well as a variable charge per unit (where one unit equals 748 gallons) based on usage (see Appendix J).

The City bills residential user classes for sewer service on a flat rate schedule (see Appendix J). The City charges commercial customers for sewer service both a flat service charge and volumetric rate based on water consumption (see Appendix J).

9.3.2 Planned Implementation

Water rates are approved through 2029. The water rates will continue to be in effect until new rates are adopted.

9.4 Public Education and Outreach

Examples for public education and outreach for water demand management can include coordination with other agencies and provision of programs promoting water conservation, speakers for the media or community groups, school education programs, public service announcements, water conservation bill inserts, information booths at public events, websites, newsletters and newspaper articles, rebates, and daily water use comparisons on customer's bills.

9.4.1 Implementation Over the Past Five Years

The City has implemented this DMM through the provision of flyers, brochures, and information packets to customers, as well as providing bill inserts promoting water conservation and providing information on the City website.

The City also supplies free individual items for indoor conservation, including adjustable massage showerheads, shower timers, faucet aerators, toilet dye kits to detect leaks, and replacement toilet flapper valves, which are available for pick up at City Hall.

9.4.2 Planned Implementation

Public information can be one of the best tools to conserve water. The City will continue to promote water conservation.

9.5 Programs to Assess and Manage Distribution System Real Loss

This DMM focuses on the water distribution system itself, and includes water audits, leak detection, and repair. The first step in a water audit is relatively straightforward, involving comparison of the amount of water produced with the amount of water delivered to customers. The difference is termed "unaccounted water," which includes actual losses (leaks) in the distribution system, authorized but unmetered use (e.g., hydrant flushing and firefighting), unauthorized water use, and meter error.

9.5.1 Implementation Over the Past Five Years

When a complaint is lodged regarding a potential water leak, the City takes swift action to identify and repair the given leak as warranted.

The City's ongoing water main replacement program is reducing water loss through addressing leaking pipes and service connections. The Annual Water Main Replacements project consists of three components: 1) replacement of 2-inch and 4-inch water mains with 8-inch to increase the reliability in the

system as well as improve fire flow capabilities; 2) replacement of deteriorated water mains throughout the City; and 3) replacement of all non-PVC pipelines. The City prioritizes the water main replacement program annually based on need and benefits.

9.5.2 Planned Implementation

The best way to evaluate the effectiveness of this program is to compare water production data at the WTP with water consumption from the City's customers. To improve the effectiveness, the City should continue to review data and identify leaks for repair, perform an annual review of the AWWA audit information to determine if a full-scale system audit is warranted, and perform distribution leak detection when warranted and cost-effective.

The 2024 real and apparent water loss is below the 2028 real and apparent water loss standards (see Table 4-6). The City will maintain water losses to achieve compliance with the Water Loss Performance Standards beginning January 1, 2028.

9.6 Water Conservation Program Coordination and Staffing Support

This DMM entails designating a Water Conservation Coordinator responsible for managing water conservation efforts, preparing conservation reports, promoting water conservation to agency staff, and evaluating the results of efforts. The Water Conservation Coordinator tasks may include, but are not limited to, monthly tracking of production versus consumption, enforcement of water use restrictions, and implementation of conservation programs.

9.6.1 Implementation Over the Past Five Years

The City has not designated a Water Conservation Coordinator. The City's water conservation program is a coordinated effort amongst various City departments, including, but not limited to, the City Manager's office (Administrative Department), Public Works, Parks and Recreation, and Community Development.

9.6.2 Planned Implementation

The City will continue to implement the City's water conservation program. The City could educate community volunteers to aid the City in water conservation efforts.

9.7 Other Demand Management Measures

The City will continue to evaluate implementation of new DMMs in the future.

9.7.1 Efficiency and Rebates

For residential and commercial/industrial customers, $100 rebates are offered for replacing a toilet that uses more than 1.28 gallons per flush with a high-efficiency toilet with WaterSense label.

The City also offers a "Cash for Grass" rebate for replacing grass with drip-irrigated, low water-use plants, and permeable hardscape. This program promotes water savings while encouraging sustainable

landscaping suited to the City's climate. The City offers $1 per square foot (sf) of turf removed for single-family residential (up to 750 sf) and for homeowner's association/multi-family/commercial/institutional (up to 2,500 sf).

The City promote rebates on the City' website and through mailers and billing inserts.

9.7.2 Administrative Policies

The City implemented the following policies to promote water conservation:

- Zero Water Footprint (ZWF) Policy (Resolution 2011-33): This policy has a goal of no loss in reliability or increase in water rates for existing water service customers due to new demand for water within the City's water service area. New developments must offset the amount of increased potable water consumption on a one-to-one basis. Developers are required to minimize demand (e.g., by using water efficient fixtures, installing water wise landscaping and irrigation) and utilize offset methods (e.g., contributing to the City's existing conservation programs, converting an existing public use of potable water to recycled water). Since Year 2020, the City has had XX number of developments that conserved XXX amount of water by utilizing the ZWF Policy.
- Municipal Code Chapter 13.10 New Water and Sewer Connections and Services: This Chapter limits new industrial water users within the City's water service area to an average of 650 gallons per acre per day (gpad) and requires dual-plumbing with purple pipe. For use greater than 650 gpad, offset options include, but are not limited to, retrofit of existing residences with low flow fixtures, purchase of otherwise developable land as permanent open space, or acquisition of other water supply resources as provided for by a water supply analysis that follows the ZWF methodology.
- Administrative Policy 2011-01 on the Management and Allocation of Raw Water: This policy has a goal of shifting the City's raw water customers (new and existing) from the SWP supply to alternative supplies (e.g., recycled water) and also provides for the development of an agricultural water conservation program.
- Administrative Policy 2011-02 on the Management and Allocation of Recycled Water: This policy has a goal of providing recycled water as a substitute for potable water as a first priority to the City's parks and then to other users for irrigation purposes. This policy establishes a framework for allocating the recycled water resource and encouraging the development of privately-owned seasonal, recycled water storage facilities.
- Administrative Policy 2011-03 on the Implementation of ZWF Policy: This policy has a goal of assigning or shifting commercial, industrial, and new residential water demands from the SWP supply to more reliable alternate sources of water. This policy describes the manner in which the City will consider and evaluate new development proposals and provides guidance on acceptable methods for offsetting new water demands within the existing water system or bringing new water supplies to the City.

9.8 Planned Implementation to Achieve Water Use Targets

The City has met its 2020 target of 162 gpcd. The City will implement conservation measures, as needed, to comply with the *Making Conservation a California Way of Life* regulation (compliance effective January 1, 2027). In all of its conservation programs, the City will avoid placing a disproportionate burden on any customer sector.

CHAPTER 10 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

The City prepared this 2025 UWMP during the fall of 2025 through summer of 2026. A completed UWMP checklist is included in Appendix K.

10.1 Inclusion of All 2025 Data

The 2025 UWMPs must include the water use and planning data for the entire year of 2025. The City is reporting on a calendar year basis and therefore, 2025 data includes the months of January to December 2025.

10.2 Notice of Public Hearing

A public hearing was held on August 18, 2026, prior to adoption of the UWMP at the Council Chambers of the City Hall, 4381 Broadway Street. Notices were provided to cities and counties, and the public. The public hearing provided an opportunity for the public to provide input on the plan before it was adopted. Additionally, the public hearing provided an opportunity for the City's customers, residents, and employees to learn and ask questions about the current and future water supply of the City.

10.2.1 Notice to Cities and Counties

> *10621(b) Every urban water supplier required to prepare a plan shall… at least 60 days prior to the public hearing on the plan… notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*
>
> *10642 …The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies…*

The cities and counties to which the City provides water supplies and other agencies, as shown in Table 10-1, were provided 60-day notification (prior to the public hearing) that the City was in the process of preparing the 2025 UWMP. The 60-day notification letters are included in Appendix B. The cities and counties were provided a notice of public hearing, including the time and location. The notice of public hearing to cities and counties is included in Appendix B.

Table 10-1 Notification to Cities and Countries

Submittal Table 10-1 Retail: Notification to Cities and Counties Water Code Section 10621(b) and 10642		
City Name	60 Day Notice	Notice of Public Hearing
City of Vallejo	Yes	Yes
City of Napa	Yes	Yes
City of Rio Vista	Yes	Yes
City of Dixon	Yes	Yes
City of Calistoga	Yes	Yes
City of Benicia	Yes	Yes
City of Vacaville	Yes	Yes
City of Fairfield	Yes	Yes
County Name	60 Day Notice	Notice of Public Hearing
Napa County	Yes	Yes
NOTES: Napa County refers to the Napa County Resource Conservation District and the Napa County Flood Control and Water Conservation District.		

10.2.2 Notice to the Public

> *10642 …Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection… Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code…*

The UWMPA requires that the UWMP show the water agency solicited public participation. The notice to the public was included in a local newspaper as prescribed in Government Code 6066. This notice included the time and location of the public hearing, in addition to the location of where the UWMP was available for public inspection. The notice of public hearing to the public is included in Appendix B.

On XXXX XX, 2026, and XXXX XX, 2026, the City placed a notice in The Reporter, Daily Democrat, and Times-Herald (local newspapers) stating that its UWMP was being updated and that a public hearing was to be conducted to address comments and concerns from members of the community. The notice stated that a public review period was scheduled through XXXX XX, 2026, for written comments. A copy of this notification is included in Appendix B.

The Draft 2025 UWMP was available for public inspection during normal business hours at City Hall's customer service counter, located at 4381 Broadway Street, as well as the City website (www.americancanyon.gov).

10.2.3 Notice to Agencies and Organizations

The following agencies and organizations were provided notice that the City was in the process of preparing the 2025 UWMP:

- Local Agency Formation Commission of Napa County.
- Napa Sanitation District.
- Reclamation District 2068.

- Solano County Water Agency.
- Solano Irrigation District.
- Napa Valley Unified School District.
- Mezzetta Processing Facility.
- American Canyon Mobile Home Park.
- Napa Olympia Mobilodge.
- The Lodge at Napa Junction.
- Top It Off Bottling, LLC.
- South County Napa Properties LP.
- Vintage Ranch LLC.

The agencies and organizations were provided 60-day notification (prior to the public hearing) and a notice of public hearing, including the time and location. The 60-Day Notification letters and the notice of public hearing are included in Appendix B.

10.3 Public Hearing and Adoption

> *10642 …Prior to adopting a plan, the urban water supplier shall hold a public hearing thereon.*
>
> *10608.26(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:*
>
> *(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.*
>
> *(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.*
>
> *(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20 for determining its urban water use target.*
>
> *10642 …After the hearing, the plan shall be adopted as prepared or as modified after the hearing.*

The plan was adopted by City Council at a public hearing on August 18, 2026. The City Adoption Resolutions are included in Appendix L. The hearing provided an opportunity for the City's customers, residents, and employees to learn and ask questions about the current and future water supply of the City. At the hearing, the UWMP, water use targets, and conservation implementation plan were discussed.

10.3.1 Adoption

After the public hearing, the 2025 UWMP was adopted as prepared.

10.4 Plan Submittal

The public hearing will be followed by submittal of the UWMP to the California DWR, the California State Library, and Cities and Counties (see Commitment to Distribute in Appendix B).

10.4.1 Submission to DWR

The 2025 UWMP will be submitted to DWR within 30 days of adoption and by July 1, 2026.

10.4.2 Electronic Data Submission

The 2025 UWMP, in addition to tabular data, will be submitted using WUE data submittal tool.

10.4.3 Submission to the California State Library

The 2025 UWMP will be submitted in hardcopy format to the California State Library within 30 days of adoption.

10.4.4 Submission to Cities and Counties

The 2025 UWMP will be submitted in electronic format to cities and counties within 30 days of adoption.

10.5 Public Availability

Within 30 days of submitting the UWMP to DWR, the adopted UWMP will be available for public review during normal business hours at the locations specified herein.

10.6 Amending and Adopted UWMP

The plan may be updated at any time when the urban water supplier believes significant changes have occurred in population, land use, and/or water sources that may affect the contents of the plan. Copies of amendments or changes to the plan shall be submitted electronically to DWR, the California State Library, and any cities or counties which the City provides water supplies within 30 days of adoption.

APPENDIX A

REDUCED DELTA RELIANCE



TECHNICAL MEMORANDUM

Demonstration of Reduced Delta Reliance

June 2026 / DRAFT

TECHNICAL MEMORANDUM

Demonstration of Reduced Delta Reliance

June 2026 / DRAFT

This document is released for the purpose of information exchange review and planning only under the authority of Brianna Barton, June 3, 2026, CA 86633.

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Abbreviations

AF	acre-feet
AFY	acre-feet per year
CCR	California Code of Regulations
City	City of American Canyon
Delta	Sacramento-San Joaquin Delta
DWR	California Department of Water Resources
FCWCD	Flood Control and Water Conservation District
SWP	State Water Project
SWRCB	State Water Resources Control Board
UWMP	Urban Water Management Plan

SECTION 1 INTRODUCTION

The Sacramento-San Joaquin Delta Reform Act of 2009 requires State and local public agencies with a "covered action" to submit a written certification of consistency to the Delta Stewardship Council as to whether the covered action is consistent with applicable policies. The City of American Canyon (City) receives supply through the State Water Project (SWP) by contract with Napa County Flood Control and Water Conservation District (FCWCD) and through an agreement with Vallejo for Delta water. Both supplies impact the Sacramento-San Joaquin Delta (Delta). Covered actions can include a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta. Therefore, the City is required to demonstrate consistency with Delta Plan Policy WR P1 (Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance). Delta Plan Policy WR P1 identifies Urban Water Management Plans (UWMP) as the tool to demonstrate consistency with State policy to reduce reliance on the Delta for a Supplier that carries out or takes part in a covered action.

The purpose of this document is to demonstrate compliance with the Sacramento-San Joaquin Delta Reform Act of 2009 and provide an analysis of the City's reduced reliance on the Delta and expected outcomes in accordance with State protocols. The analysis provided herein includes the WR P1 requirements needed in a water supplier's UWMP to support a certification of consistency for covered actions. The inclusion of this document as an appendix to the City's UWMPs, commencing with the 2015 UWMP, fulfills the requirements of WR P1. Future projects under evaluation will fulfill the requirements of WR P1.

SECTION 2 DELTA PLAN POLICY WR P1 REQUIREMENTS

WR P1 details the requirements for a covered action to demonstrate consistency with reduced reliance on the Delta and improved regional self-reliance. WR P1 subsection (a) states that: Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:

- One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c).
- That failure has significantly caused the need for the export, transfer, or use.
- The export, transfer, or use would have a significant adverse environmental impact in the Delta.

WR P1 subsection (c)(1) further defines what adequately contributing to reduced reliance on the Delta means in terms of (a) above. 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:

- Completed a current UWMP which has been reviewed by the California Department of Water Resources (DWR) for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;

- 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
- 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).

California Code of Regulations (CCR), Title 23, § 5003(c) is followed by a description of programs and projects that reduce reliance on the Delta. Programs and projects that reduce reliance could include, but are not limited to, improvements in water use efficiency, water recycling, stormwater capture and use, advanced water technologies, conjunctive use projects, local and regional water supply and storage projects, and improved regional coordination of local and regional water supply efforts.

SECTION 3 DEMONSTRATION OF REDUCED DELTA RELIANCE

The approach to determine the City's reduced Delta reliance and improved regional self-reliance is consistent with the approach detailed by the California DWR in Appendix C of their "Urban Water Management Plan Guidebook 2025" (DWR Guidebook), issued in January 2026. The data used in the reduced reliance analysis for demands and supplies is detailed below. All data represent average or normal water year conditions and were obtained from the 2025 UWMP, previously adopted UWMPs, and City records.

The data inputs used in the reduced reliance analysis include:

- Water Years:
  - » Baseline (2010) – The analysis uses a normal water year representation of 2010 as the baseline, which is consistent with the approach described in the DWR Guidebook. Data for the City's 2010 baseline are taken from City records and information presented in the City's 2015 UWMP.
  - » 2015-2025 Conditions – The actual conditions for 2015 through 2025 are based on data reported in the City's 2015 through 2025 UWMPs, respectively.
  - » 2030-2050 Conditions – Normal year projections for 2030 through 2050 are taken from the City's 2025 UWMP.
- Service Area Water Demands with Water Use Efficiency Accounted For – These values reflect the City's actual and projected water use, including potable water demands, agricultural raw water, and losses.
- Non-Potable Water Demands – These values consist of agricultural raw water that is not treated.
- Population – Population data for 2010 through 2020 are taken from previous UWMPs. The population for 2025 and projected populations are taken from the 2025 UWMP.

- Water Supplies Contributing to Regional Self-Reliance:
  - Water Use Efficiency – This amount is calculated by DWR's spreadsheet tool based on the City's baseline demand, actual demands, and projected demands. Calculated by multiplying the reduction in per capita water demand from the baseline (2010) for a year by the actual or projected population for the same year. For example, in 2030 there would be 1,322 acre-feet (AF) in supply from water use efficiency.
  - Water Recycling – Reflects the actual or projected recycled water delivered to customers within the City's drinking water service area. Recycled water contributes to regional self-reliance by reducing the demand for potable water. Note that there was no recycled water delivered within the service area in 2010. For example, in 2030 there would be ### AF in supply from water recycling.
  - Other categories in the table do not currently apply to the City's supply portfolio. Supply options the city is evaluating include surface water storage at Lake Curry, groundwater production wells outside of City limits, and potable reuse of recycled water. In 2017, the City became a partner in the Sites Reservoir Project, an off-river up to 1.5 million AF reservoir that will capture excess water from major storms and save it for drier periods. This project has not been added to the table and will be revisited when more information about this project, such as expected increase in water supply, is available. Construction is scheduled to begin in 2026 and Sites Reservoir is anticipated to be operational at the end of 2033. The current planned storage allocation for the City is 24,936 AF. See Appendix D of the 2025 UWMP.
- Water Supplies from the Delta Watershed:
  - The City sub-contracts with the Napa County FCWCD for imported surface water from the SWP.
  - The City has an agreement with Vallejo to purchase raw and treated water. Vallejo has an appropriative water right for Delta water from the State Water Resources Control Board (SWRCB) pre-dating the construction of the SWP.

Table 1 and Table 2 contain demand calculations. Table 3 contains the regional self-reliance analysis and Table 4 contains the analysis of the City's reduced Delta reliance. The tables were generated using DWR's spreadsheet tool and fulfill the requirements of WR P1 subsection (c)(1) Paragraph C.

SECTION 4 EXPECTED OUTCOMES FOR REDUCED RELIANCE ON THE DELTA

As stated in WR P1(c)(1)(C), commencing in 2015, UWMPs are required to include expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance. WR P1 further states that those outcomes shall be reported in the UWMP as the reduction in the amount or percentage of water used from the Delta. The following provides a summary of the near-term (2030) and long-term (2050) expected outcomes for the City's Delta reliance and regional self-reliance based on the assumptions described in the previous section and DWR's analysis tool. The results show that the City is measurably reducing reliance on the Delta and improving regional self-reliance, based on the percentage of the City's water supplies from the Delta watershed.

Expected Outcomes for Regional Self-Reliance (Table 3):

- Near-term (2030) – Normal water year regional self-reliance is expected to increase from 358 acre-feet per year (AFY) in 2015 to #,### AFY in 2030. This is achieved through water use efficiency and increased recycled water use.
- Long-term (2050) – Normal water year regional self-reliance is expected to increase from #,### AFY in 2030 to #,### AFY in 2050. This is achieved through water use efficiency and increased recycled water use.

Expected Outcomes for Percent of Water Supplies from the Delta Watershed (Table 4):

- Near-term (2030) – Normal water year reliance on supplies from the Delta watershed is expected to decrease by approximately 38 percent relative to the 2010 baseline.
- Long-term (2050) – Normal water year reliance on supplies from the Delta watershed is expected to decrease by approximately 23 percent relative to the 2010 baseline.

Table 1 Calculation of Water Use Efficiency

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	3,024	2,976	2,636	2,235	2,381	2,448	2,514	2,581	2,647
Non-Potable Water Demands	33	56	63	28	28	28	28	28	28
Potable Service Area Demands with Water Use Efficiency Accounted For	2,991	2,920	2,573	2,207	2,353	2,420	2,486	2,553	2,619

Total Service Area Population	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Service Area Population	19,392	20,315	19,524	22,477	23,830	24,555	25,280	26,005	26,730

Water Use Efficiency Since Baseline (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Per Capita Water Use (GPCD)	138	128	118	88	88	88	88	88	87
Change in Per Capita Water Use from Baseline (GPCD)		(9)	(20)	(50)	(50)	(50)	(50)	(50)	(50)
Estimated Water Use Efficiency Since Baseline		213	438	1,260	1,322	1,367	1,413	1,458	1,503

Table 2 Calculations 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	3,024	2,976	2,636	2,235	2,381	2,448	2,514	2,581	2,647
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline		213	438	1,260	1,322	1,367	1,413	1,458	1,503
Service Area Water Demands without Water Use Efficiency Accounted For	3,024	3,189	3,074	3,495	3,704	3,815	3,927	4,039	4,151

Table 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	-	213	438	1,260	1,322	1,367	1,413	1,458	1,503
Water Recycling	-	145	208	473	###	###	###	###	###
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	-	358	646	1,733	1,322	1,367	1,413	1,458	1,503

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	3,024	3,189	3,074	3,495	3,704	3,815	3,927	4,039	4,151

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	-	358	646	1,733	1,322	1,367	1,413	1,458	1,503
Change in Water Supplies Contributing to Regional Self-Reliance		358	646	1,733	1,322	1,367	1,413	1,458	1,503

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	0.0%	11.2%	21.0%	49.6%	35.7%	35.8%	36.0%	36.1%	36.2%
Change in Percent of Water Supplies Contributing to Regional Self-Reliance		11.2%	21.0%	49.6%	35.7%	35.8%	36.0%	36.1%	36.2%

Table 4 Calculation of Reliance on Water Supplies from 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	2,373	2,346	2,051	2,565	3,376	3,376	3,376	3,376	3,376
Delta/Delta Tributary Diversions									
Transfers and Exchanges									
Other Water Supplies from the Delta Watershed	570	566	558	657	1,629	1,629	1,629	1,629	1,629
Total Water Supplies from the Delta Watershed	2,943	2,912	2,609	3,222	5,005	5,005	5,005	5,005	5,005

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	3,024	3,189	3,074	3,495	3,704	3,815	3,927	4,039	4,151

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	2,943	2,912	2,609	3,222	5,005	5,005	5,005	5,005	5,005
Change in Water Supplies from the Delta Watershed		(31)	(334)	279	2,062	2,062	2,062	2,062	2,062

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	97.3%	91.3%	84.9%	92.2%	135.1%	131.2%	127.4%	123.9%	120.6%
Change in Percent of Water Supplies from the Delta Watershed		-6.0%	-12.5%	-5.1%	37.8%	33.9%	30.1%	26.6%	23.3%

SECTION 5 APPENDIX TO 2025 UWMP

The information contained in this document is also included as Appendix A to the City's 2025 UWMP, consistent with WR P1 subsection (c)(1)(C) (CCR, Title 23, Section 5003). As described in Chapter 10 of its 2025 UWMP, the City followed the required public notification, public review and hearing, and adoption processes required by the Urban Water Management Planning Act. The 2025 UWMP (including this Appendix) were adopted by the City Council on August 18, 2026 (see Appendix L of the 2025 UWMP).

APPENDIX B

OUTREACH DOCUMENTS

Public Hearing Notices to be included with Public Review Draft or Final Urban Water Management Plan.

CITY OF AMERICAN CANYON

March 23, 2026

The Lodge at Napa Junction
5500 Eucalyptus Drive
American Canyon, CA 94503

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

This letter is intended to notify your agency that the City of American Canyon (City) is in process of preparing the 2025 Urban Water Management Plan (UWMP). The City is located in Napa County and supplies potable and recycled water to approximately 22,000 residents and businesses through approximately 6,025 connections. The City's water service area is approximately 5.5 square miles and includes the City limits as well as the industrial/commercial area to the north along State Highway 29, including the Napa Airport Industrial Park.

UWMPs are prepared and adopted by urban water suppliers of a certain size every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their current and future water demands. A complete UWMP is necessary for the City to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The City is encouraging participation by land use agencies, water use agencies, and other interested parties in the UWMP. The City would like to extend to your agency an opportunity to meet with us to go over the various elements of the UWMP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

Based on the City's current schedule, we anticipate that a draft of the 2025 UWMP will be available for public review in May 2026 prior to adoption in June 2026. Your agency will receive a notification letter when the draft UWMP is available for public review.

If your agency would like to learn more about the 2025 UWMP, submit questions or comments, or provide input to the City, please contact me at (707) 647-4558 or esmithies@americancanyon.gov.

Sincerely,

Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Top It Off Bottling, LLC
201 Devlin Road
Napa, CA 94558

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

This letter is intended to notify your agency that the City of American Canyon (City) is in process of preparing the 2025 Urban Water Management Plan (UWMP). The City is located in Napa County and supplies potable and recycled water to approximately 22,000 residents and businesses through approximately 6,025 connections. The City's water service area is approximately 5.5 square miles and includes the City limits as well as the industrial/commercial area to the north along State Highway 29, including the Napa Airport Industrial Park.

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Sincerely,

Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Vintage Ranch LLC
100 Toscana Drive
American Canyon, CA 94503

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

This letter is intended to notify your agency that the City of American Canyon (City) is in process of preparing the 2025 Urban Water Management Plan (UWMP). The City is located in Napa County and supplies potable and recycled water to approximately 22,000 residents and businesses through approximately 6,025 connections. The City's water service area is approximately 5.5 square miles and includes the City limits as well as the industrial/commercial area to the north along State Highway 29, including the Napa Airport Industrial Park.

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Sincerely,

Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

American Canyon Mobile Home Park
260 American Canyon Road
American Canyon, CA 94503

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

This letter is intended to notify your agency that the City of American Canyon (City) is in process of preparing the 2025 Urban Water Management Plan (UWMP). The City is located in Napa County and supplies potable and recycled water to approximately 22,000 residents and businesses through approximately 6,025 connections. The City's water service area is approximately 5.5 square miles and includes the City limits as well as the industrial/commercial area to the north along State Highway 29, including the Napa Airport Industrial Park.

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If your agency would like to learn more about the 2025 UWMP, submit questions or comments, or provide input to the City, please contact me at (707) 647-4558 or esmithies@americancanyon.gov.

Sincerely,

Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Mezzetta Processing Facility
105 Mezzetta Court
American Canyon, CA 94503

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

This letter is intended to notify your agency that the City of American Canyon (City) is in process of preparing the 2025 Urban Water Management Plan (UWMP). The City is located in Napa County and supplies potable and recycled water to approximately 22,000 residents and businesses through approximately 6,025 connections. The City's water service area is approximately 5.5 square miles and includes the City limits as well as the industrial/commercial area to the north along State Highway 29, including the Napa Airport Industrial Park.

UWMPs are prepared and adopted by urban water suppliers of a certain size every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their current and future water demands. A complete UWMP is necessary for the City to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

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Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Napa Olympia Mobilodge
244 American Canyon Road
American Canyon, CA 94503

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

This letter is intended to notify your agency that the City of American Canyon (City) is in process of preparing the 2025 Urban Water Management Plan (UWMP). The City is located in Napa County and supplies potable and recycled water to approximately 22,000 residents and businesses through approximately 6,025 connections. The City's water service area is approximately 5.5 square miles and includes the City limits as well as the industrial/commercial area to the north along State Highway 29, including the Napa Airport Industrial Park.

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cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

South County Napa Properties LP
156 Camino Oruga
Napa, CA 94558

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

This letter is intended to notify your agency that the City of American Canyon (City) is in process of preparing the 2025 Urban Water Management Plan (UWMP). The City is located in Napa County and supplies potable and recycled water to approximately 22,000 residents and businesses through approximately 6,025 connections. The City's water service area is approximately 5.5 square miles and includes the City limits as well as the industrial/commercial area to the north along State Highway 29, including the Napa Airport Industrial Park.

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If your agency would like to learn more about the 2025 UWMP, submit questions or comments, or provide input to the City, please contact me at (707) 647-4558 or esmithies@americancanyon.gov.

Sincerely,

Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Napa County Resource Conservation District
1303 Jefferson Street, Suite 500B
Napa, CA 94559

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Local Agency Formation Commission of Napa County
1754 Second Street, Suite C
Napa, CA 94559

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Napa Sanitation District
1515 Soscol Ferry Road
Napa, CA 94558

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

City of Napa Water Division
1700 Second Street
Napa, CA 94559

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

City of Vallejo Water Division
202 Fleming Hill Road
Vallejo, CA 94589

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

City of Rio Vista
Public Works Department
1 Main Street
Rio Vista, CA 94571

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

This letter is intended to notify your agency that the City of American Canyon (City) is in process of preparing the 2025 Urban Water Management Plan (UWMP). The City is located in Napa County and supplies potable and recycled water to approximately 22,000 residents and businesses through approximately 6,025 connections. The City's water service area is approximately 5.5 square miles and includes the City limits as well as the industrial/commercial area to the north along State Highway 29, including the Napa Airport Industrial Park.

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Sincerely,

Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

City of Dixon Utilities
171 S. 5th Street
Dixon, CA 95620

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Solano County Water Agency
810 Vaca Valley Parkway, Suite 202
Vacaville, CA 95688

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

This letter is intended to notify your agency that the City of American Canyon (City) is in process of preparing the 2025 Urban Water Management Plan (UWMP). The City is located in Napa County and supplies potable and recycled water to approximately 22,000 residents and businesses through approximately 6,025 connections. The City's water service area is approximately 5.5 square miles and includes the City limits as well as the industrial/commercial area to the north along State Highway 29, including the Napa Airport Industrial Park.

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Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Solano Irrigation District
810 Vaca Valley Parkway
Suite 201
Vacaville, CA 95688

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cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Reclamation District 2068
7178 Yolano Road
Dixon, CA 95620

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CITY OF AMERICAN CANYON

March 23, 2026

City of Calistoga
Public Works Department
414 Washington Street
Calistoga, CA 94515

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

City of Benicia
Public Works Department
250 East L Street
Benicia, CA 94510

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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Public Works Director

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CITY OF AMERICAN CANYON

March 23, 2026

City of Fairfield
Water Division
1000 Webster Street
Fairfield, CA 94533

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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Public Works Director

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CITY OF AMERICAN CANYON

March 23, 2026

City of Vacaville
Utilities Administration
6040 Vaca Station Road
Elmira, CA 95625

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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Public Works Director

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Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

CITY OF AMERICAN CANYON

March 23, 2026

Napa Valley Unified School District
2425 Jefferson Street
Napa, CA 94558

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

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CITY OF AMERICAN CANYON

March 23, 2026

Napa County Flood Control & Water Conservation District
804 First Street
Napa, CA 94559

Subject: **Notice of Preparation of the 2025 City of American Canyon Urban Water Management Plan**

This letter is intended to notify your agency that the City of American Canyon (City) is in process of preparing the 2025 Urban Water Management Plan (UWMP). The City is located in Napa County and supplies potable and recycled water to approximately 22,000 residents and businesses through approximately 6,025 connections. The City's water service area is approximately 5.5 square miles and includes the City limits as well as the industrial/commercial area to the north along State Highway 29, including the Napa Airport Industrial Park.

UWMPs are prepared and adopted by urban water suppliers of a certain size every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their current and future water demands. A complete UWMP is necessary for the City to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The City is encouraging participation by land use agencies, water use agencies, and other interested parties in the UWMP. The City would like to extend to your agency an opportunity to meet with us to go over the various elements of the UWMP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

Based on the City's current schedule, we anticipate that a draft of the 2025 UWMP will be available for public review in May 2026 prior to adoption in June 2026. Your agency will receive a notification letter when the draft UWMP is available for public review.

If your agency would like to learn more about the 2025 UWMP, submit questions or comments, or provide input to the City, please contact me at (707) 647-4558 or esmithies@americancanyon.gov.

Sincerely,

Erica Ahmann Smithies
Public Works Director

cc: Jason B. Holley, City of American Canyon, City Manager
Norman Woods, City of American Canyon, Assistant Director of Public Works
Dominic Patrick, City of American Canyon, Water Systems Manager

Commitment to Distribute the 2025 Urban Water Management Plan (UWMP)

The documentation currently included in these appendices satisfies California Water Code (CWC) parts 10621(b) and 10642.

Two other sections of the CWC specify UWMP documentation that must take place after the submission of the supplier's UWMP to the California Department of Water Resources (DWR). These parts are as follows:

- Part 10644(a), requiring documentation that within 30 days of submitting the UWMP to DWR, the adopted UWMP has been or will be submitted to the California State Library and any city or county to which the supplier provides water.
- Part 10645, requiring documentation that the supplier will make the UWMP available for public review no later than 30 days after submission to DWR.

In order to satisfy these requirements, the City will perform the following actions:

- The City will submit its 2025 UWMP to DWR.
- The City will send a printed or electronic copy of its 2025 UWMP to the California State Library and to the cities and counties within which it provides water. The City will do this within 30 days from filing with DWR.
- The City will make their 2025 UWMP available for public review within 30 days from filing with DWR.

APPENDIX C

SB X7-7 VERIFICATION AND COMPLIANCE FORMS

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent with Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	4,193	Acre Feet
	2008 total volume of delivered recycled water	67	Acre Feet
	2008 recycled water as a percent of total deliveries	1.60%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1999	
	Year ending baseline period range[3]	2008	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range[4]	2007	

[1] *If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.* [2] *The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.*

[3] *The ending year must be between December 31, 2004 and December 31, 2010.*

[4] *The ending year must be between December 31, 2007 and December 31, 2010.*

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☑	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☑	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	1999	9,628
Year 2	2000	9,803
Year 3	2001	10,302
Year 4	2002	11,748
Year 5	2003	13,073
Year 6	2004	14,104
Year 7	2005	15,418
Year 8	2006	16,350
Year 9	2007	17,655
Year 10	2008	18,258
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2003	13,073
Year 2	2004	14,104
Year 3	2005	15,418
Year 4	2006	16,350
Year 5	2007	17,655
2015 Compliance Year Population		
2015		20,315
NOTES:		

SB X7-7 Table 4: Annual Gross Water Use *								
			Deductions					
Baseline Year *Fm SB X7-7 Table 3*		**Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**Exported Water**	**Change in Dist. System Storage** (+/-)	**Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.*	**Water Delivered for Agricultural Use**	**Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.*	**Annual Gross Water Use**
10 to 15 Year Baseline - Gross Water Use								
Year 1	1999	2,039.25	-	-	-	46.22	-	1,993.03
Year 2	2000	2,369.20	-	-	-	180.02	-	2,189.18
Year 3	2001	2,608.83	-	-	-	143.69	-	2,465.14
Year 4	2002	2,913.08	-	-	-	94.99	-	2,818.09
Year 5	2003	3,207.12	-	-	-	135.42	-	3,071.70
Year 6	2004	3,657.13	-	-	-	196.65	-	3,460.48
Year 7	2005	3,715.62	-	-	-	142.39	-	3,573.23
Year 8	2006	3,638.54	-	-	-	108.33	-	3,530.21
Year 9	2007	3,984.24	-	-	-	174.17	-	3,810.07
Year 10	2008	4,126.13	-	-	-	109.60	-	4,016.53
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**3,093**
5 Year Baseline - Gross Water Use								
Year 1	2003	3,207.12	-	-	-	135.42	-	3,071.70
Year 2	2004	3,657.13	-	-	-	196.65	-	3,460.48
Year 3	2005	3,715.62	-	-	-	142.39	-	3,573.23
Year 4	2006	3,638.54	-	-	-	108.33	-	3,530.21
Year 5	2007	3,984.24	-	-	-	174.17	-	3,810.07
5 year baseline average gross water use								**3,489**
2015 Compliance Year - Gross Water Use								
2015		3,013.67	-		-	56.21	-	**2,957**

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	SWP Water
This water source is:	
☐	The supplier's own water source
☑	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1999	1,382		1,382
Year 2	2000	1,682		1,682
Year 3	2001	2,097		2,097
Year 4	2002	2,391		2,391
Year 5	2003	2,657		2,657
Year 6	2004	3,112		3,112
Year 7	2005	3,148		3,148
Year 8	2006	3,009		3,009
Year 9	2007	3,340		3,340
Year 10	2008	3,453		3,453
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2003	2,657		2,657
Year 2	2004	3,112		3,112
Year 3	2005	3,148		3,148
Year 4	2006	3,009		3,009
Year 5	2007	3,340		3,340
2015 Compliance Year - Water into Distribution System				
2015		2,025		2,025

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Vallejo Permit Water			
This water source is:				
☐	The supplier's own water source			
☑	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1,999	500		500
Year 2	2,000	500		500
Year 3	2,001	500		500
Year 4	2,002	500		500
Year 5	2,003	500		500
Year 6	2,004	500		500
Year 7	2,005	500		500
Year 8	2,006	500		500
Year 9	2,007	500		500
Year 10	2,008	500		500
Year 11	-			0
Year 12	-			0
Year 13	-			0
Year 14	-			0
Year 15	-			0
5 Year Baseline - Water into Distribution System				
Year 1	2,003	500		500
Year 2	2,004	500		500
Year 3	2,005	500		500
Year 4	2,006	500		500
Year 5	2,007	500		500
2015 Compliance Year - Water into Distribution System				
2015		500		500
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Vallejo Treated Water			
This water source is:				
☐	The supplier's own water source			
☑	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1,999	157.49		157
Year 2	2,000	186.78		187
Year 3	2,001	12.03		12
Year 4	2,002	22.57		23
Year 5	2,003	50.38		50
Year 6	2,004	44.95		45
Year 7	2,005	67.32		67
Year 8	2,006	129.12		129
Year 9	2,007	144.61		145
Year 10	2,008	172.93		173
Year 11	-			0
Year 12	-			0
Year 13	-			0
Year 14	-			0
Year 15	-			0
5 Year Baseline - Water into Distribution System				
Year 1	2,003	50.38		50
Year 2	2,004	44.95		45
Year 3	2,005	67.32		67
Year 4	2,006	129.12		129
Year 5	2,007	144.61		145
2015 Compliance Year - Water into Distribution System				
2015		101.67		102
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 4-A: Volume Entering the Distribution				
Name of Source	Vallejo Emergency Water			
This water source is:				
☐	The supplier's own water source			
☑	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1,999	0		0
Year 2	2,000	0		0
Year 3	2,001	0		0
Year 4	2,002	0		0
Year 5	2,003	0		0
Year 6	2,004	0		0
Year 7	2,005	0		0
Year 8	2,006	0		0
Year 9	2,007	0		0
Year 10	2,008	0		0
Year 11	-			0
Year 12	-			0
Year 13	-			0
Year 14	-			0
Year 15	-			0
5 Year Baseline - Water into Distribution System				
Year 1	2,003	0		0
Year 2	2,004	0		0
Year 3	2,005	0		0
Year 4	2,006	0		0
Year 5	2,007	0		0
2015 Compliance Year - Water into Distribution System				
2015		387		387
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				
NOTES:				

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1999	9,628	1,993	185
Year 2	2000	9,803	2,189	199
Year 3	2001	10,302	2,465	214
Year 4	2002	11,748	2,818	214
Year 5	2003	13,073	3,072	210
Year 6	2004	14,104	3,460	219
Year 7	2005	15,418	3,573	207
Year 8	2006	16,350	3,530	193
Year 9	2007	17,655	3,810	193
Year 10	2008	18,258	4,017	196
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**203**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2003	13,073	3,072	210
Year 2	2004	14,104	3,460	219
Year 3	2005	15,418	3,573	207
Year 4	2006	16,350	3,530	193
Year 5	2007	17,655	3,810	193
5 Year Average Baseline GPCD				**204**
2015 Compliance Year GPCD				
2015		20,315	2,957	**130**
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	203
5 Year Baseline GPCD	204
2015 Compliance Year GPCD	130
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
203	**162**
NOTES:	

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
204	194	162	**162**

[1] Maximum 2020 Target is 95% of the 5 Year Baseline GPCD *[2] 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.*

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
162	203	**183**
NOTES:		

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)* Enter "0" if Adjustment Not Used: Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
130	183	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	-	130	130	**YES**
NOTES:								

SB X7-7 Table 0: Units of Measure Used in 2020 UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.*
NOTES:

SB X7-7 Table 1 pertains to baselines and targets and is not used in the SB X7-7 2020 Compliance Form.

SB X7-7 Table 2: Method for 2020 Population Estimate	
Method Used to Determine 2020 Population (may check more than one)	
☑	**1. Department of Finance** (DOF) or **American Community Survey** (ACS)
☑	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: 2020 Service Area Population	
2020 Compliance Year Population	
2020	19,524
NOTES:	

SB X7-7 Table 4: 2020 Gross Water Use							
Compliance Year 2020	2020 Volume Into Distribution System *This column will remain blank until SB X7-7 Table 4-A is completed.*	2020 Deductions					2020 Gross Water Use
		Exported Water *	Change in Dist. System Storage* (+/-)	Indirect Recycled Water *This column will remain blank until SB X7-7 Table 4-B is completed.*	Water Delivered for Agricultural Use*	Process Water *This column will remain blank until SB X7-7 Table 4-D is completed.*	
	2,609	-	-	-	63	-	**2,546**

*** Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES: Units of measure are acre-feet (AF). Raw water purchased for agricultural use has been deducted.

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	State Water Project Water
This water source is *(check one)* **:**	
☐	The supplier's own water source
☑	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	29	-	29

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are acre-feet (AF).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s) Meter Error Adjustment

Complete one table for each source.

Name of Source	Vallejo Permit Water
This water source is *(check one)* **:**	
☐	The supplier's own water source
☑	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	500		500

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are acre-feet (AF).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Vallejo Treated Water
This water source is *(check one)* **:**	
☐	The supplier's own water source
☑	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	58		58

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are acre-feet (AF).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Article 21
This water source is *(check one)* **:**	
☐	The supplier's own water source
☑	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	191		191

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are acre-feet (AF).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Article 56 Carryover
This water source is *(check one)* **:**	
☐	The supplier's own water source
☑	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	1,819		1,819

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are acre-feet (AF).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Table A Exchange Return Water
This water source is *(check one)* **:**	
☐	The supplier's own water source
☑	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	12		12

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are acre-feet (AF).

SB X7-7 Table 4-B: 2020 Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

2020 Compliance Year	2020 Surface Reservoir Augmentation					2020 Groundwater Recharge			Total Deductible Volume of Indirect Recycled Water Entering the Distribution System
	Volume Discharged from Reservoir for Distribution System Delivery[1]	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss[1]	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility[1,2]	Transmission/ Treatment Losses[1]	Recycled Volume Entering Distribution System from Groundwater Recharge	
			-		-			-	-

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.*

[2] *Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C: 2020 Process Water Deduction Eligibility **(For use only by agencies that are deducting process water) Choose Only One**	
☐	**Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	**Criteria 2** - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	**Criteria 3** - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☐	**Criteria 4** - Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.1: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 1)*

Criteria 1
Industrial water use is equal to or greater than 12% of gross water use

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction	2020 Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
	2,546		0%	NO

NOTES: Units of measure are acre-feet (AF).

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.2: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 2)*

Criteria 2
Industrial water use is equal to or greater than 15 GPCD

2020 Compliance Year	2020 Industrial Water Use	2020 Population	2020 Industrial GPCD	**Eligible for Exclusion Y/N**
		19,524	-	NO

NOTES:

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.3: 2020 Process Water Deduction Eligibility *(For use only*
by agencies that are deducting process water using Criteria 3)

Criteria 3
Non-industrial use is equal to or less than 120 GPCD

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	2020 Industrial Water Use	2020 Non-industrial Water Use	2020 Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
	2,546		2,546	19,524	116	YES

NOTES: Units of measure are acre-feet (AF).

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.4: 2020 Process Water Deduction Eligibility ***(For** use only by agencies that are deducting process water using Criteria 4)*

Criteria 4

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

SELECT ONE

"Disadvantaged Community" status was determined using one of the methods listed below:

1. IRWM DAC Mapping tool https://gis.water.ca.gov/app/dacs/

☐	If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

2. 2020 Median Income

	California Median Household Income*		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
☐	**2020**	**$75,235**		0%	YES

*California median household income 2015 -2019 as reported in US Census Bureau QuickFacts.

NOTES

Data from these tables will not be entered into WUEdata. Instead, the entire tables will be uploaded to WUEdata as a separate upload in Excel format.

This table(s) is only for Suppliers that deduct process water from their 2020 gross water use.

SB X7-7 Table 4-D: 2020 Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*

Name of Industrial Customer	*Enter Name of Industrial Customer 1*				
Compliance Year 2020	Industrial Customer's Total Water Use *	Total Volume Provided by Supplier*	% of Water Provided by Supplier	Customer's Total Process Water Use*	Volume of Process Water Eligible for Exclusion for this Customer
					-

*** Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES:

SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD)		
2020 Gross Water *Fm SB X7-7 Table 4*	**2020 Population** *Fm SB X7-7 Table 3*	**2020 GPCD**
2,546	19,524	**116**
NOTES: Units of measure are acre-feet (AF).		

SB X 7-7 Table 6 pertains to baselines and targets and is not used in the SB X7-7 2020 Compliance Form.

SB X7-7 Table 7 applies to baseline and target calculations and is not included in the SB X7-7 2020 Compliance Form.

SB X7-7 Table 8 was used for the 2015 Interim Target and is not used in the 2020 UWMP.

SB X7-7 Table 9: 2020 Compliance							
Actual 2020 GPCD[1]	Optional Adjustments to 2020 GPCD Enter "0" if Adjustment Not Used			TOTAL Adjustments[1]	Adjusted 2020 GPCD [1] *(Adjusted if applicable)*	2020 Confirmed Target GPCD [1, 2]	**Did Supplier Achieve Targeted Reduction for 2020?**
	Extraordinary Events[1]	Weather Normalization[1]	Economic Adjustment[1]				
116	-	-	-	-	116	162	**YES**

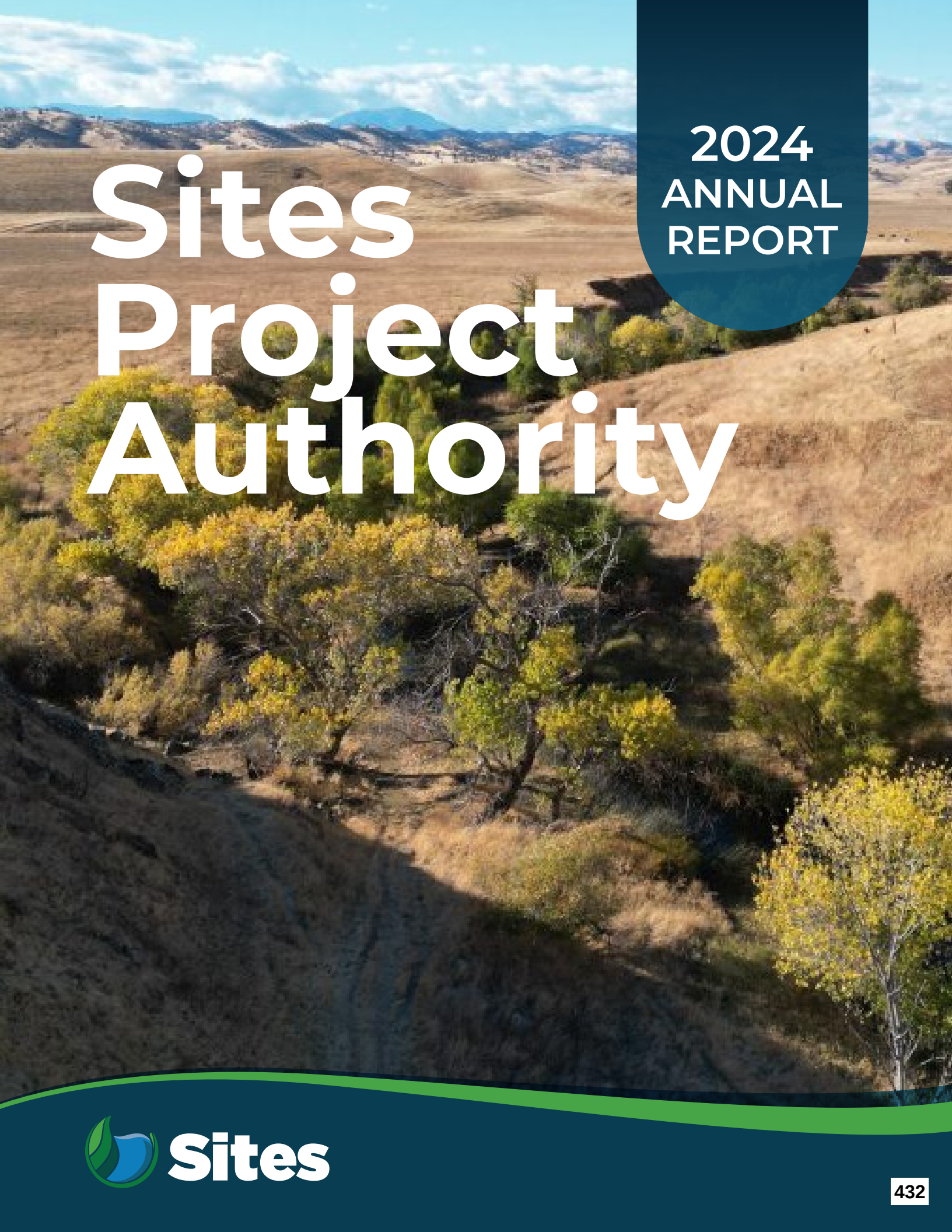
[1] *All values are reported in GPCD*

[2] ***2020 Confirmed Target GPCD*** *is taken from the Supplier's SB X7-7 Verification Form Table SB X7-7, 7-F.*

NOTES:

APPENDIX D

SITES RESERVOIR 2024 ANNUAL PROGRESS REPORT AND DOI PRESS RELEASE



Sites Project Authority

2024 ANNUAL REPORT

Sites











A MESSAGE FROM THE SITES PROJECT AUTHORITY

2024 marked the start of a new chapter for the Sites Reservoir Project with several major milestones that moved the Sites Reservoir Project closer to final design and construction. We successfully defended legal challenges to the environmental review process, with courts ruling that the Final Environmental Impact Report (EIR) fully complies with the California Environmental Quality Act (CEQA). We made advancements in the Sites Reservoir Project's permitting process with the California Department of Fish and Wildlife (CDFW) issuing the Incidental Take Permits required for construction and operation of the reservoir, and the State Water Resources Control Board beginning proceedings to consider our Water Right permit. We also began preparing for the next phase of the Sites Reservoir Project by initiating our first land purchase of property west of Maxwell and launching the selection process for a Construction Manager at Risk (CMAR) contractor for the Dams and Reservoir package, which marks a critical step toward construction.

Our progress comes at a time when water storage is needed more than ever in California. In early 2024, Northern California experienced a series of atmospheric rivers that marked the close of yet another wet year. Our real-time modeling showed that if Sites Reservoir was already operational, it would have been 80% full after large storms in January and February and 100% full by the end of the 2023-2024 wet season in April. We continue to see how well Sites Reservoir will perform during wet years, and how much it's needed to capture and store water for dry years.

This need is also reflected in the growing support for Sites Reservoir. Last year, 16 agencies across California expressed interest in participation and were placed on the waitlist, which reflects the broad support that has been a hallmark of the Sites Reservoir Project. Our state and federal partners continue to invest in Sites Reservoir, with more than $273M in federal funding secured in 2024, bringing the total to approximately $517M at the close of the year. This broad and diverse support underscores the significant benefits the Sites Reservoir Project will provide to our communities, farms, and environment.

In 2025, we will work toward our next big milestones—selecting a CMAR contractor, moving from design to construction, securing additional real estate acquisitions, and obtaining our Water Right permit. With each milestone, we move one step closer to delivering a 21st century reservoir that provides water reliability, flexibility, and resiliency for generations to come.

Thank you for your continued support.

Fritz Durst
CHAIRMAN,
Sites Project Authority Board of Directors

Valerie Pryor
CHAIRWOMAN,
Sites Reservoir Committee

TRANSITIONING TOWARD CONSTRUCTION

NOW

The Sites Project Authority has stayed true to its strategic plan and delivered results

Sites Reservoir is Permittable

Now: The Sites Project Authority received major state biological permits to construct and operate Sites Reservoir.

Next: Receive a water right, which is the remaining step to secure Sites Reservoir benefits.

Sites Reservoir has an Effective Organization

Now: Participants and the Sites Project Authority are united in the common goal of creating a more secure water future through Sites Reservoir.

Next: Finalize and sign the agreements that will cement this generational partnership for a century.

Sites Reservoir is Buildable

Now: The Sites Project Authority designed a reliable and safe project and understands the cost and schedule.

Next: Engage the right contractors and keep the local community involved in key decisions.

Sites Reservoir is Affordable

Now: The Sites Project Authority has a plan to finance the Sites Reservoir Project with a flexible Water Infrastructure Finance and Innovation Act (WIFIA) loan and increasing contributions from the state and federal governments that will keep the project affordable for Participants.

Next: Each Participant will decide how the project fits into their future needs and budgets.

NEXT

Sites Reservoir is Ready for Construction

Breaking ground is a significant milestone—a big hill to crest on our journey to a more secure water future.

A Better Future

Sites Reservoir is a generational opportunity to create a sustainable water solution.

CONSTRUCTING A BETTER FUTURE

Embarking on the next part of the journey, together

The end of 2024 marks a pivotal time for Sites Reservoir. The Sites Reservoir Project is nearly ready for construction due to the enduring commitment of every Participant—each seeing Sites Reservoir as an investment that will provide a secure water future for generations to come.

A VISION OF
A BETTER FUTURE

Shaped by shared values, Sites Reservoir represents so much more than water storage.
It's a project driven by a commitment to community, affordability, collaboration, and opportunity.

Community

HUMBLE

As a result of growing from humble roots, the success of Sites Reservoir depends on the unwavering support from the local people and community. It is their continuous encouragement and dedication that propels the Sites Project forward and reinforces the Sites Project Authority's efforts, which enables us to achieve our goals.

LOCALLY LED

Sites Reservoir remains a viable project because it is locally led and because it fits into the values and ideals of the people it will serve. Sites Reservoir has a long history that is woven into the identity of the local community. The Sites Project Authority, in partnership with local communities, has shaped Sites Reservoir into a project that will honor the principles of the community.

Affordability

COST EFFECTIVE

Sites is an accumulation of years of research on cost-effective technologies that will be a long-term asset. The initial cost to build a water solution of this magnitude is substantial, but Sites Reservoir offers more than the sum of planning, construction, and operation costs and will be increasingly cost effective over time.

ECONOMICAL

Everyone is hit with rising costs and inflation, but Sites Reservoir remains the smartest option. The initial commitment to participate in Sites Reservoir can be intimidating, but no one is making this commitment alone. With state and federal funding and the commitment from every Participant, Sites Reservoir remains the most economical solution with the most opportunity for increasing affordability over time.

Cities, water agencies, and reclamation districts across the state are participating in Sites Reservoir because of the unique benefits it will provide:

- A reliable water supply for communities, farms, and the environment
- Dedicated environmental storage to support wildlife and their habitats
- Increased effectiveness of existing water infrastructure
- Recreational opportunities
- Job creation during construction and operations

Collaboration

STATEWIDE

The Sites Project Authority is made up of local, state, and federal public agencies from across California. Together, we're working to increase our water supply resiliency while protecting and enhancing the environment.

COMMITTED

The Sites Project Authority holds firm in its dedication to deliver and honor commitments. The Sites Project Authority sets and upholds high standards that bring Sites Reservoir to reality as a unique, multi-benefit water storage project that provides a resilient and reliable water supply.

Opportunity

STABILITY

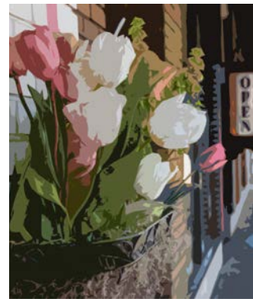
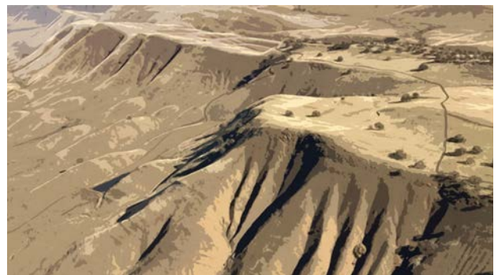
Sites Reservoir provides stability through long-term career opportunities. Local families have skilled labor/craft opportunities as they build prosperous careers while supporting their communities in return.

SECURITY

Water from Sites Reservoir is flexible and resilient to accommodate various interests and needs. Every Participant is in control of its share of water from Sites Reservoir and each chooses when and how to use the water asset they have stored in their dedicated storage space in Sites Reservoir.

As our changing climate continues to threaten our water supply, Sites Reservoir remains a vital tool for securing California's water future.





HIGHLIGHTS AND MILESTONES 2024

We've made remarkable progress in the last few years and are entering the next phase of the Sites Reservoir Project. We will continue to accomplish our remaining strategic imperatives...together.

Permittable

Defended EIR litigation successfully

The Sites Project Authority cleared a major hurdle after courts rejected two legal challenges to the Sites Reservoir Project's CEQA process and the certification of the Final EIR. OUTCOME → The Yolo County Superior Court and the Court of Appeals found that the Sites Project Authority fully complied with CEQA in its review of the Sites Reservoir Project. Without the Sites Reservoir Project's certification under Senate Bill 149, the expediency of the Court's decision could have been delayed by several years.

Secured incidental take permits for construction and operations

In collaboration with the CDFW, the Sites Project Authority secured key permits, including the Construction and Operations Incidental Take Permits. OUTCOME → The advancement of permitting elements provides additional certainty to Participants that the Sites Reservoir Project is on target to construction.

Continued the Water Right process

Through ongoing coordination with the State Water Resources Control Board, the Sites Project Authority is progressing through the water right hearing process. OUTCOME → The Sites Reservoir Project is on track to obtain its Water Right Order and Permit.

Effective Organization

Continued outreach and tours for partners and interested parties

Throughout 2024, the Sites Project Authority hosted Sites Reservoir Project tours for state, federal, and local partners that shared information about permitting, design, funding, and governmental interest. OUTCOME → The Sites Project Authority continues its commitment to transparent communication and keeping partners informed.

Informed potential Participants

The Sites Project Authority continues to receive requests from agencies throughout California to participate in the Sites Reservoir Project. Staff kept these 16 interested parties informed of progress. OUTCOME → The Sites Project Authority has broad statewide support from cities, counties, water agencies, and irrigation districts throughout the Sacramento Valley, San Joaquin Valley, Bay Area, and Southern California. All are working together to advance the Sites Reservoir Project.

Remained steady through state and federal leadership changes

The Sites Project Authority continues to work with all representatives at the local, state, and federal levels to make the Sites Reservoir Project a reality. OUTCOME → Ongoing collaboration with local leadership and governmental partners has allowed the Sites Reservoir Project to continue transparent and synchronized progression toward construction.

Buildable

Completed preliminary design for all facilities

The Sites Project Authority completed the preliminary design (approximately 30% design) for all Sites Reservoir Project facilities and published the design drawings on its website. OUTCOME → The Sites Project Authority is setting the stage to move from planning to delivery.

Conducted contractor outreach

In partnership with contractors throughout the nation, the Sites Project Authority hosted contractor outreach events in February, April, and September 2024 to inform the delivery strategy for the Sites Reservoir Project. OUTCOME → Routine outreach helps keep the contracting community informed as the Sites Reservoir Project moves closer to construction.

Affordable

Received additional federal funding

The Sites Project Authority secured an additional $273.1M in federal appropriations—$205.6M in March 2024 through the Water Infrastructure Improvements for the Nation (WIIN) Act and $67.5M in May 2024 through the Infrastructure Investment and Jobs Act/Bipartisan Infrastructure Law. OUTCOME → With the appropriation of these funds, the Sites Project Authority has received roughly $517M in federal appropriations through 2024.

Progressed WIFIA Loan Agreement

Administered by the United States Environmental Protection Agency (EPA), WIFIA is a federal loan program with a statutorily required review process. The Sites Project Authority continued collaboration with the EPA to develop the loan documents. OUTCOME → The Sites Project Authority remains committed to securing a WIFIA Loan to help reduce costs to Participants.

HIGHLIGHT OF THE YEAR: Initiated Property Acquisition

In collaboration with local landowners who are willing sellers, the Sites Project Authority entered into an agreement in October 2024 to purchase approximately 817 acres where the inlet/outlet tower, realigned Maxwell Sites Road, and several construction haul roads will be located.

The Sites Project Authority entered into a second property acquisition agreement in November 2024 to purchase approximately 1,200 acres where the Golden Gate Dam and associated facilities are located.



"This acquisition represents the first of many land acquisitions with local landowners to occur in the coming years to advance this much-needed project, decades in the making."

— Fritz Durst,
Chair of the Sites Project Authority Board of Directors

Remaining Steadfast

The Sites Reservoir Project remains viable and is poised to begin construction because of broad and diverse support across California.



29 Participants span California

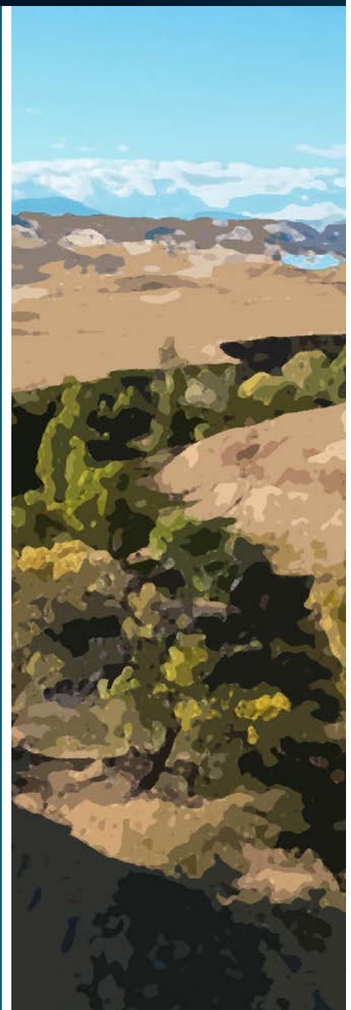
9 Sacramento Valley governing agencies

22 Reservoir Committee Participants

Blue shading represents Participant service areas; does not account for state and federal participation.

Throughout 2024, the Sites Project Authority accumulated 16 water agencies across California that are now on the waitlist. This reflects the broad support that has been a hallmark of the Sites Reservoir Project.

Sites Reservoir is locally-led and supports local values, and will ultimately benefit ALL Californians.



2024 Costs, Funding, and Schedule

Cost Share

Since 2015 through December 31, 2024



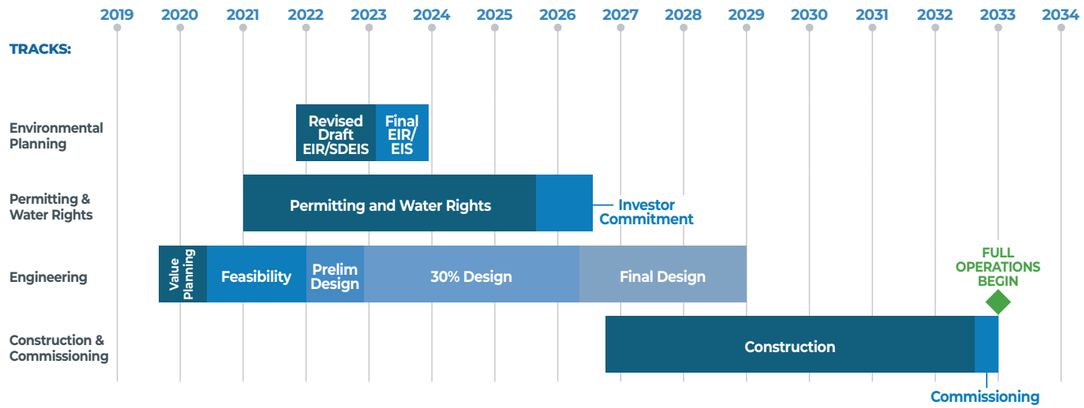
Roughly **$155M** has been expended since 2015.

Approximate Sources and Uses of Funds

Source of Funds	
Membership Admin/ Authority	$413,000
Membership Water	$25,640,000
Proposition 1 Funding	$1,136,000
WIIN Act Funding	$9,068,000
Interest	$1,701,000
TOTAL	**$37,958,000**

Use of Funds	
Communications	$447,000
Engineering	$12,524,000
External Affairs	$360,000
General Project Activities	$267,000
Permitting	$7,278,000
Planning	$1,718,000
Program Operations	$5,857,000
Real Estate	$2,613,000
TOTAL	**$31,064,000**

Sites Authority Project Schedule



Diverse Statewide Support for the Sites Reservoir Project

Colusa County Water District | Cortina Water District | Davis Water District
LaGrande Water District | Zone 3 – Colusa County Flood Control Water Conservation District

An official website of the United States government Here's how you know

Countdown to America's 250th Anniversary:
3 months / 1 day

U.S. Department of the Interior MENU

Home Interior Advances President Trump's Executive O...

Interior Advances President Trump's Executive Order 14181 Priorities, Approves Sites Reservoir Project to Strengthen California Water Reliability

Share

Approval clears path for new off-stream storage as Executive Order anniversary highlights more than 200,000 acre-feet of water in operational gains.

01/23/2026
Last edited 01/23/2026

Contact Information Interior_Press@ios.doi.gov

SACRAMENTO, Calif. — The Department of the Interior today marked the one-year anniversary of President Donald J. Trump's water supply directive by approving the Record of Decision for the Sites Reservoir Project, a major off-stream storage project in Northern California. The decision authorizes the Bureau of Reclamation to provide up to 25 percent of the total cost for the 1.5 million acre-foot off-stream reservoir, which will be located west of the Sacramento

River near Maxwell. Designed to capture and store water during wet periods for use in dry years, the project will strengthen reliability for communities, agriculture and the environment across the state.

The action reflects the Trump administration's priority to expand water supply, enhance system resilience and reduce regulatory delays through the direction established in Executive Order 14181. The order has driven operational improvements that delivered more than 200,000 acre-feet of additional water to the Central Valley Project, enough to supply more than 500,000 people for a year by streamlining operations and capturing storm flows that historically could not be stored.

"President Trump made clear that federal water projects must deliver real results for American families," said **Secretary of the Interior Doug Burgum**. "This administration is getting it done in record time. The Sites Reservoir Project and the gains achieved over the past year demonstrate how a disciplined, mission-focused approach can expand water reliability for communities, agriculture and the economy."

As a result of the executive order and favorable hydrology, Reclamation made more than 180,000 acre-feet of additional water available to the Central Valley Project in 2025 compared to 2024, benefiting agricultural water users, communities and other project partners. Following the approval of the Action 5 Record of Decision in December 2025, an additional 39,000 acre-feet was captured during storm events in late December and early January by leveraging operational flexibilities, water that historically would have flowed through the system. In total, these efforts secured more than 200,000 acre-feet within one year of the order's signing. Sites Reservoir would further boost that supply.

"Signing the Sites Reservoir Record of Decision represents a federal commitment to move a long-studied water storage project forward," said **Assistant Secretary for Water and Science Andrea Travnicek**. "This decision reflects years of analysis, public engagement and coordination, and establishes the foundation for construction through sound partnerships that will ultimately result in additional water supplies for California."

The Record of Decision finalizes Reclamation's selection of an alternative analyzed in the project's environmental review and authorizes the agency to move forward consistent with applicable federal laws and regulations. The decision follows years of technical studies, public input and coordination with state, local and tribal partners.

Reclamation continues to implement President Trump's Executive Order 14181 as it advances both near-term operational improvements and long-term infrastructure projects that support food production, strengthen economic stability and increase community resilience.

For more information, please review the Record of Decision.

###

PRESS RELEASE



04/02/2026

Interior Announces Strategic Initiative to Improve Efficiency, Boost American Energy Independence...

U.S. Secretary of the Interior Doug Burgum today announced a strategic initiative to improve resource management and the delivery of critical services nationwide. The initiative aims to strengthen Interior's mission of stewardship and service, optimizing operations, streamlining outdated bureaucracy and ensuring meaningful economic benefits for taxpayers and communities across the country.

PRESS RELEASE



03/31/2026

DOI, USDA Move to Boost Support for American Ranchers, Help Lower Prices for Consumers

U.S. Secretary of the Interior Doug Burgum and U.S. Secretary of Agriculture Secretary Brooke L. Rollins today announced new actions aimed at boosting the supply of American born, raised, and harvested beef by supporting American ranchers with the signing of a new Memorandum of Understanding that will strengthen coordination, cut bureaucratic red tape, and deliver immediate, tangible support for America's farmers and ranchers who rely on public lands.

Read more

Read more

PRESS RELEASE



03/31/2026

Secretary Burgum Emphasizes Critical Role of Gulf of America Energy Production Following Endangered...

U.S. Secretary of the Interior Doug Burgum released a statement following the Endangered Species Committee meeting to highlight the critical role of energy development in the Gulf of America. The Secretary emphasized that sustained oil and gas production in the region is essential to U.S. national security and economic stability, and cautioned that critical energy operations should not be jeopardized by the threat of disruptive litigation.

Read more

Was this page helpful?

◯ Yes ◯ No **Submit**

Return to top



U.S. Department of the Interior
Stewarding Conservation and Powering Our Future

1849 C Street NW, Washington, DC 20240

APPENDIX E

ENERGY INTENSITY FORMS

To be included after receipt of requested power bills.

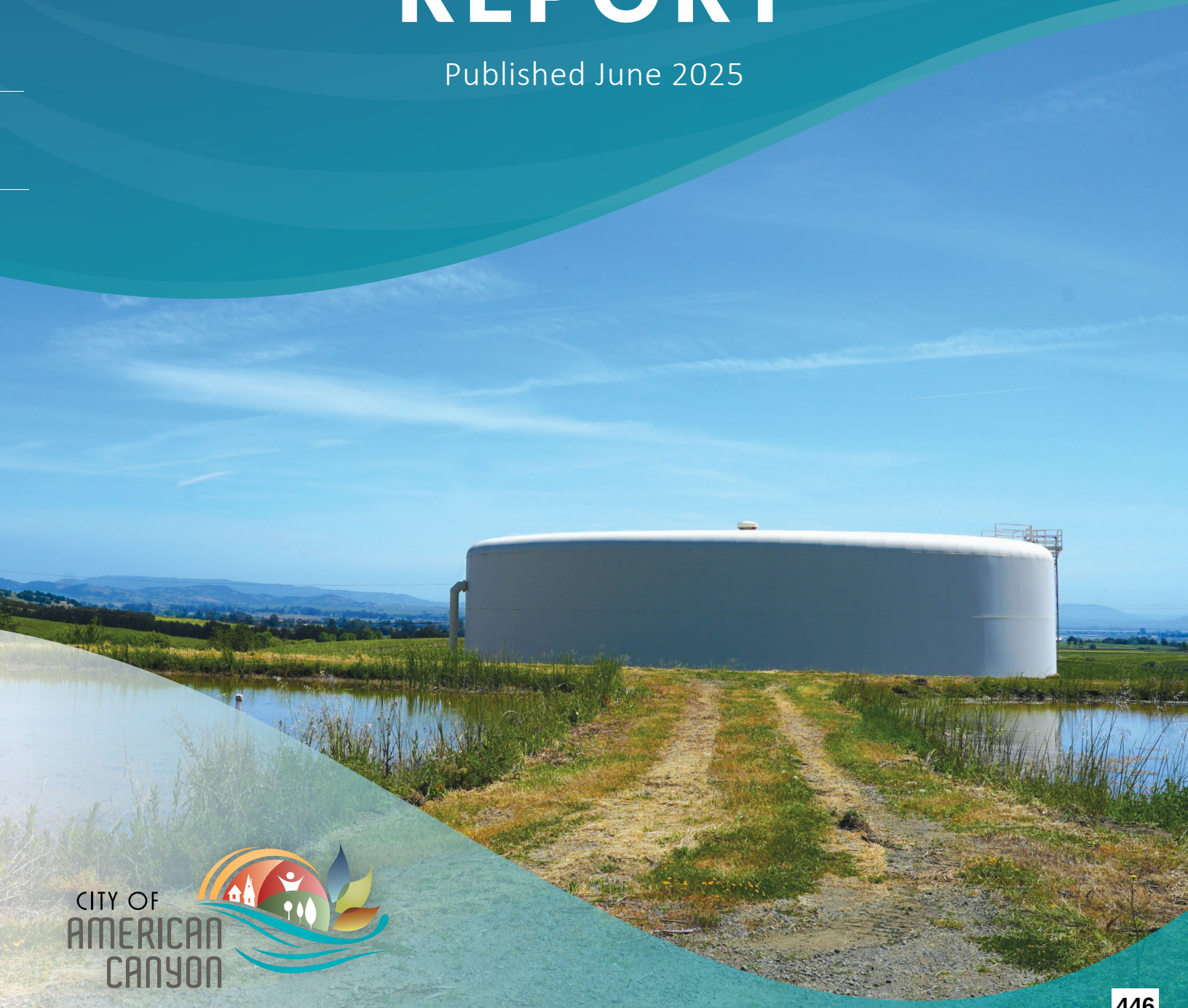
APPENDIX F

2024 CONSUMER CONFIDENCE REPORT

2024 ANNUAL

WATER QUALITY REPORT

Published June 2025



CITY OF AMERICAN CANYON

To Our Customers

The City of American Canyon is pleased to present its 2024 Water Quality Report, enhanced with a fresh design and content to help you understand where your water comes from and how we keep it safe.

Clean water flows through every part of daily life — shaping the way we live, work and play. From morning routines to evening meals, countless moments of each day depend upon having safe, clean water. American Canyon's drinking water is rigorously tested to ensure it meets the highest standards, ensuring you can turn on the tap with confidence.

Behind the scenes are dedicated professionals maintaining our treatment plants, testing water quality and planning for future needs. Our water infrastructure supports not just households, but also the businesses and industries that drive our local economy.

From the Phillip West Aquatics Center to our beautiful parks and open spaces, water enhances our recreation and the natural beauty that makes American Canyon such a great place to play. Sustainable water practices help preserve these resources for generations to come.

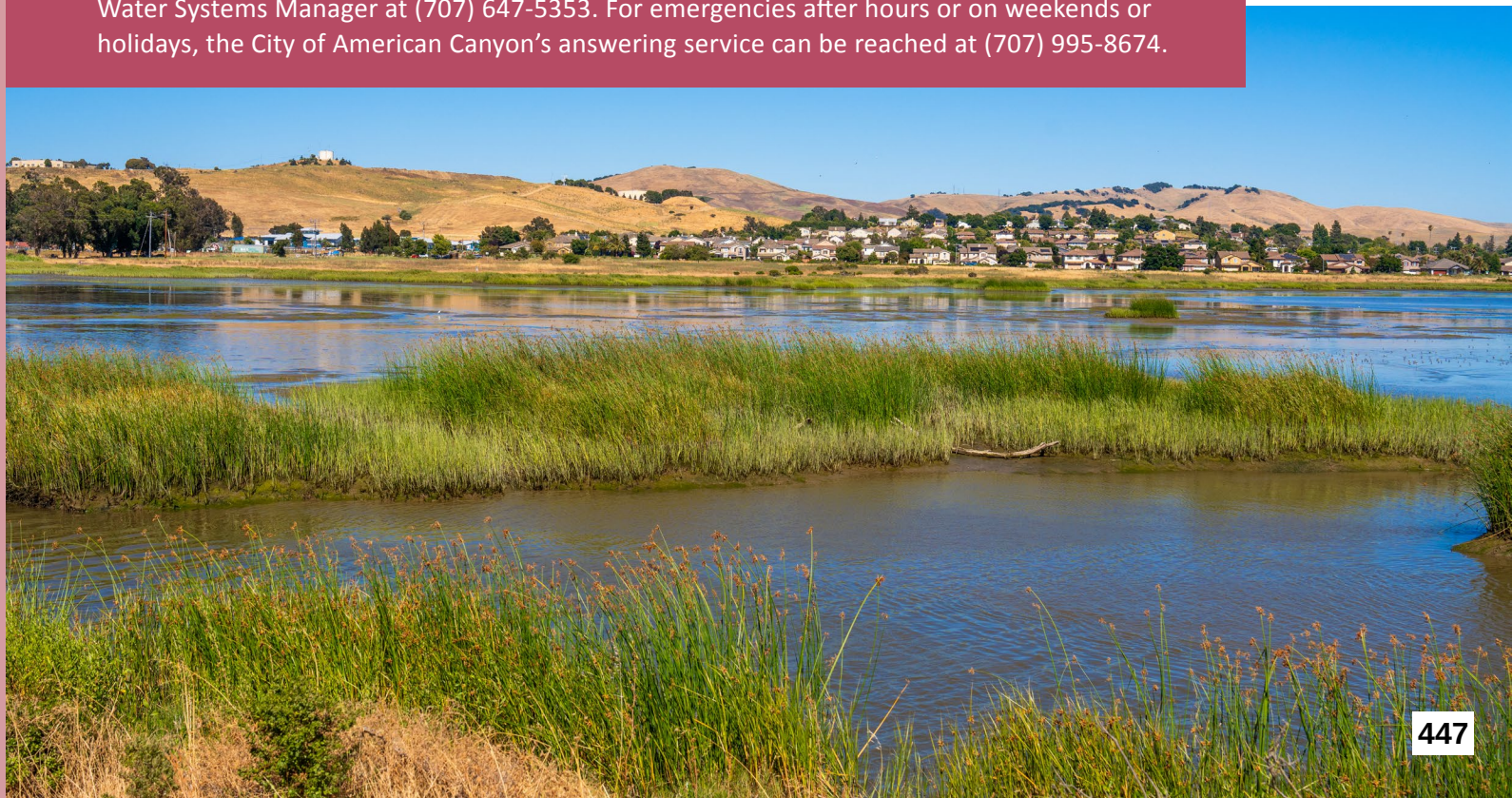
This report provides insights into your water's journey from source to tap, including detailed information about water quality, testing results and our ongoing efforts to safeguard American Canyon's water supply for generations to come.

To learn more, attend any regularly scheduled City Council meeting, held on the first and third Tuesdays of each month at 6:30 p.m. at the American Canyon City Hall Council Chambers at 4381 Broadway, Suite 201.

Sincerely,

Dominic Patrick
Water Systems Manager

If you have questions about this report or your water quality, please contact our Water Systems Manager at (707) 647-5353. For emergencies after hours or on weekends or holidays, the City of American Canyon's answering service can be reached at (707) 995-8674.



Behind the Tap

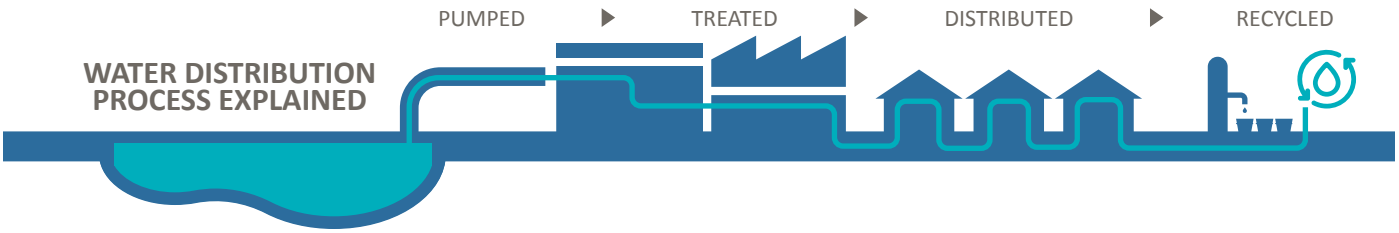
American Canyon's dedicated Water Treatment & Distribution team works tirelessly to deliver safe, reliable water to our community.



Our comprehensive water journey ensures your safety at every step:

- PUMPED: Water is drawn from our sources and carefully monitored.
- TREATED: Our dual treatment systems use advanced filtration systems to remove contaminants.
- DISTRIBUTED: Treated water flows through a meticulously maintained network.
- RECYCLED: Sustainable practices conserve this precious resource, recycling it for use on landscapes and other irrigation.

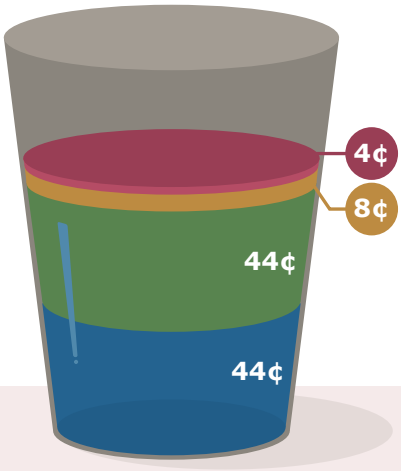
Our team of water professionals monitors every stage of treatment, ensuring safe and reliable water is efficiently delivered to your taps.



Your Dollar at Work

American Canyon is committed to wisely stewarding our financial and environmental resources. Every dollar you pay for water service supports essential functions.

We're constantly working to lower our operating expenses. Recent cost-saving initiatives include repairing major leaks, installing solar power at our treatment facilities to reduce electricity costs and implementing advanced membrane filtration systems with longer lifespans. These sustainable improvements not only enhance service quality but also stabilize rates while protecting our vital water resources for generations to come.



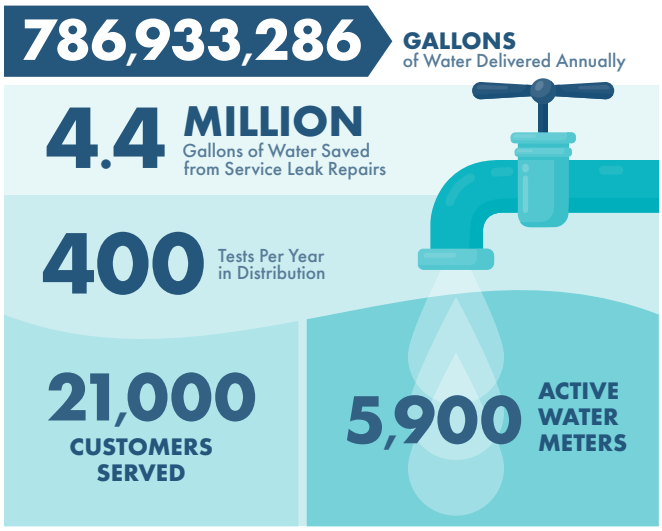
4¢	Administration
8¢	Customer Service
44¢	Service Delivery
44¢	Infrastructure
$1	Total

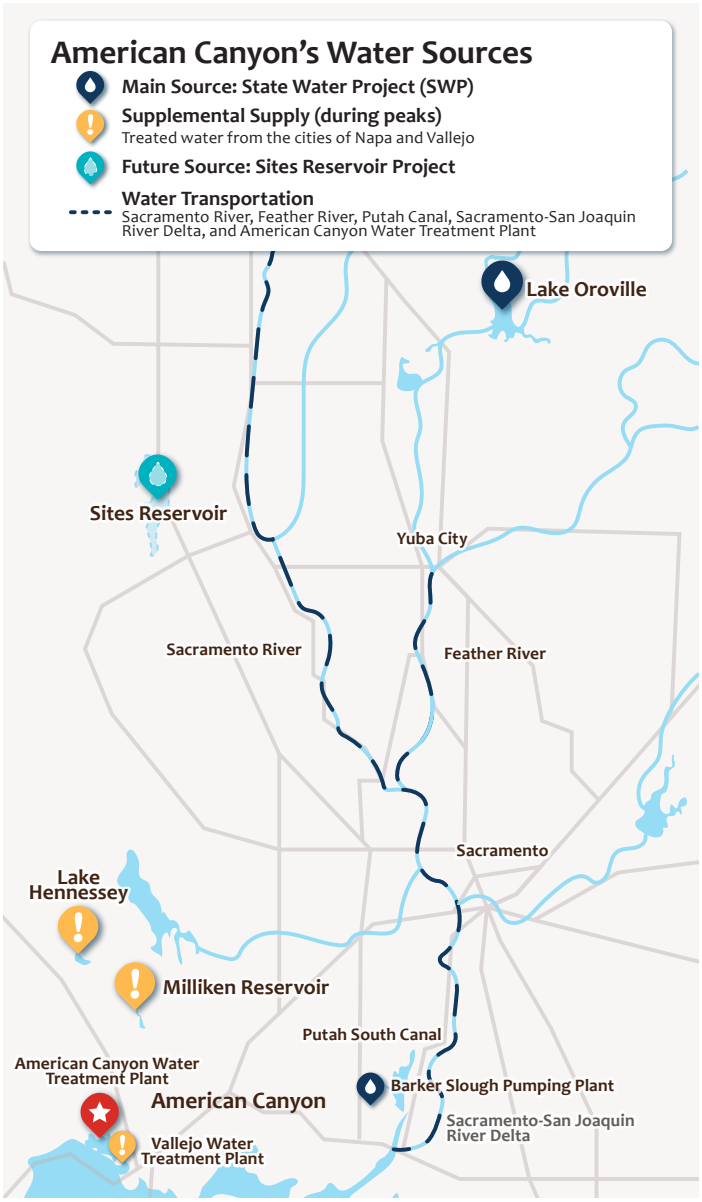
**Based on FY 24 Budget*

Your Water at a Glance

American Canyon's water primarily comes from the State Water Project (SWP) through the North Bay Aqueduct (NBA), originating at Barker Slough. During high-demand periods, we supplement with treated water purchased from Vallejo and Napa.

Our dual-plant treatment system combines conventional treatment with advanced membrane technology to provide exceptional water quality. Filtered water is disinfected with chlorine and pH-adjusted before distribution, with all processes monitored by state-certified operators.





To ensure your water is safe to drink, we follow rigorous federal and state regulations that limit contaminants in public water systems. We conduct comprehensive testing throughout the year, monitoring for over 100 potential contaminants. Our tests ensure that American Canyon's water consistently meets or exceeds all drinking water standards set by the U.S. Environmental Protection Agency and the State Water Resources Control Board.

For more information about water quality and treatment, visit **www.DrinkTap.org,** a resource designed to explain complex water topics in easy-to-understand formats.

Capital Improvement Projects

American Canyon continuously invests in its water system to ensure clean, reliable and safe water for our community. The following projects play a key role in that effort.

Ultrafiltration Membrane Replacement
In Progress

This project will replace aging membrane filters at our Water Treatment Plant, increasing capacity by 33% while enhancing removal of contaminants. The upgrade significantly improves drinking water quality and safety for all residents.

Knightsbridge Rehabilitation & Water Main Improvements
In Progress

This ongoing project replaces the 8-inch water main along Knightsbridge Way and its associated courts, while simultaneously upgrading ADA curb ramps and improving crosswalks and pavement conditions throughout the neighborhood.

Rancho Del Mar Paving & Utility Improvements
In Progress

Construction is underway to upgrade water mains, repair sewer systems, enhance pavement and improve ADA accessibility across multiple streets in the Rancho Del Mar neighborhood.

SCADA System Upgrades
In Progress

American Canyon will be upgrading its Supervisory Control and Data Acquisition (SCADA) systems to enhance water quality monitoring, system reliability, regulatory compliance and cybersecurity.



Knightsbridge Rehabilitation & Water Main Improvements







Source Water Contaminant Information

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in untreated source water include:

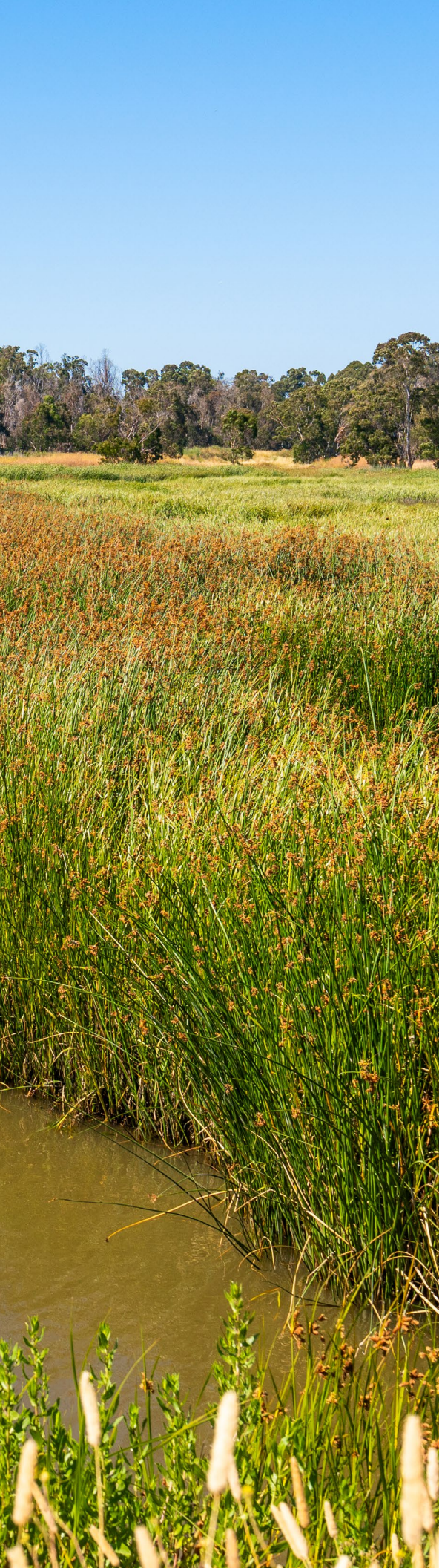
Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.

Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.



Understanding Coliform Bacteriological Results

Coliforms are bacteria that are not harmful at low levels and are naturally present in the environment. Positive samples can result due to improper laboratory sampling analysis, improper sample collection, new construction, repair and/or biological activity occurring with equipment and piping.

The Revised Total Coliform Rule (RTCR) establishes a maximum contaminant level (MCL). It requires public water systems (PWS) to assess sanitary defects and then correct them. Total coliform samples must be collected by PWS at sites which represent water quality throughout the distribution system. Water systems that exceed a specified frequency of total coliform occurrences must conduct an assessment to determine if any sanitary defects exist. If found, the water system must correct these defects. The state Revised Total Coliform Rule became effective July 1, 2021.

Important Information on Your Drinking Water

The City of American Canyon routinely monitors for contaminants in your drinking water according to federal and state laws. The following pages show the results of our most recent monitoring for the period of January 1, 2024, through December 31, 2024, unless otherwise noted.

All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline att 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

Environmental Protection Agency (EPA) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

About Your Water Quality Report

Important Definitions

To aid in understanding the information on the following pages, American Canyon has compiled a list of important definitions and acronyms below.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a drinking water system must follow.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically or technologically feasible. Secondary maximum contaminant levels (SMCL's) are set to protect the odor, taste and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the US EPA.

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that cannot be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected health risk. MRDLGs are set by the US EPA.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.



Acronyms

CDPH — California Department of Public Health

DBP — Disinfection Byproducts

HAA — Haloacetic Acids

NA — Not Analyzed

N/A — Not Applicable

NBA — North Bay Aqueduct

ND — None Detected

NL — Notification Level

NS — No Standard

SWP — State Water Project

THM — Trihalomethanes

TOC — Total Organic Carbon

uS/cm — microsiemens per centimeter

US EPA — United States Environmental Protection Agency

µg/L — Microgram per liter

Concentration Comparisons

Trace chemicals in water are typically measured in parts per million (ppm), parts per billion (ppb) or parts per trillion (ppt). The following comparisons help provide real-life context for the scale of those small concentrations.

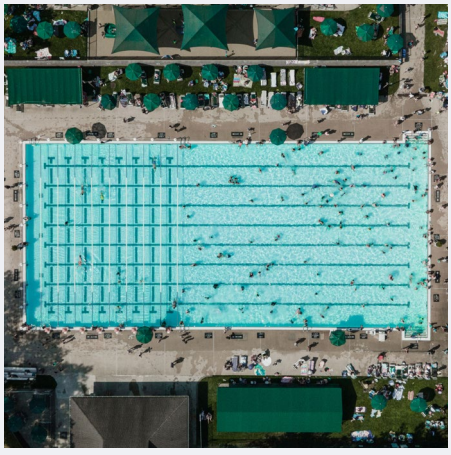
Part per Million (PPM)



drop

in a 13-gallon fish tank

Part per Billion (PPB)



drop

spread across 50 Olympic-sized swimming pools

Part per Trillion (PPT)



drop

in a lake that is 6 square miles

Water Quality Data

SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA 2024

Microbiological Contaminants	Highest # of Detections	# of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (Total Coliform Rule)	1	0	Greater than 5% of monthly samples positive.	0	Naturally present in the environment
Fecal Coliform or E.coli (Total Coliform Rule)	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli	0	Human and animal fecal waste

Note: The City of American Canyon analyzes a minimum of 20 water samples per month throughout the year in the water distribution system for coliform bacteria.

SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER 2024

Lead and Copper	Samples Collected	90th Percentile Level Detected	# of Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (µg/L) September 2024	30	0 (µg/L)	0	15	<2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (µg/L) September 2024	30	0 (µg/L)	0	1300	3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SAMPLING RESULTS FOR SODIUM, HARDNESS AND GENERAL CHEMISTRY 2024

Contaminant (CCR Reporting Units)	Samples Dates	Avg. Level Detected	Range of Detections	AL	PHG (MCLG)	DLR	Typical Source of Contaminant
Conductivity uS/cm	Quarterly 2024	347	214 – 579	N/A	N/A	1.0	Generally found in ground & surface water
Hardness (mg/L as CaC03)	Monthly 2024	88.1	61 – 141	N/A	N/A	5.0	Generally found in ground & surface water
Calcium (mg/L)	Monthly 2024	15.5	12.0 – 24.0	N/A	N/A	1.0	Naturally occurring dissolved mineral
Magnesium (mg/L)	Monthly 2024	11.9	7.6 – 20.0	N/A	N/A	1.0	Naturally occurring dissolved mineral
pH	Daily 2024	8.20	7.65 – 8.64	N/A	N/A	-	pH 6.5 to 8.5 is typical for drinking water
Alkalinity (mg/L as CaCO3)	Monthly 2024	85.3	40.0 – 200.0	N/A	N/A	-	Measures the buffering capacity of the water

DETECTION OF UNREGULATED CONTAMINANTS 2024

Contaminant (CCR Reporting Units)	Sample Dates	Avg. Level Detected	Range of Detections	MRL	MCL	RL	PHG/AL	Typical Source of Contaminant
PFOS (ng/L)	Quarterly 2024	ND	ND	N/A	N/A	6.5	40	Man made. Used in consumer products, fire retarding foam and other industrial processes
Lithium (g/L)	Quarterly 2024	ND	ND	N/A	N/A	-	-	Man made. Used in consumer products, fire retarding foam and other industrial processes

DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD 2024

Contaminant (CCR Reporting Units)	Samples Dates	Avg. Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	DLR	Typical Source of Contaminant
Chlorine (Distribution system) (mg/L)	Daily 2024	1.6	.21 – 2.56	4.0	4.0	-	Disinfectant required by regulation to be added to drinking water.
Arsenic (µg/L)	Quarterly 2024	ND	ND	10	0.004	2.0	Erosion of natural deposits; residual from some water treatment process
Barium (mg/L)	Quarterly 2024	ND	ND	1000	2	100	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits. Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure.
Nitrate (mg/L as NO3)	Quarterly 2024	ND	ND	10	45	2	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits. Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may affect the oxygen-carrying ability of the blood of pregnant women.
Total Trihalomethanes* (Distribution system) (ppb)	Quarterly 2024	70.8	27.5 – 126.9	80	N/A	-	By-product of drinking water disinfection.
Total of Five Haloacetic Acids* HAA5 (Distribution system) (ppb)	Quarterly 2024	60.8	25.2 – 124.5	60	N/A	-	By-product of drinking water disinfection.
Total Organic Carbon (TOC) (µg/L)	Monthly 2024	2.5	1.59 – 4.1	N/A	N/A	0.3	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts.
Turbidity (NTU) Membrane Plant	Daily 2024	0.047	0.033 – 2.002	5	TT	TT	Soil runoff. TT = 95% of samples must be <0.3NTU
Turbidity (NTU) Conventional Plant	Daily 2024	0.132	0.090 – 3.001	5	TT	TT	Soil runoff. TT = 95% of samples must be <0.3NTU
Flouride (mg/L)	Quarterly 2024	ND	0.00 – .116	2.0	1	0.10	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories

DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD 2024

Contaminant (CCR Reporting Units)	Sample Dates	Avg. Level Detected	Range of Detections	SMCL	PHG (MCLG)	DLR	Typical Source of Contaminant
Manganese (mg/L)	Quarterly 2024	ND	ND	50	N/A	20	Leaching from natural deposits
Aluminum (ug/L)	Quarterly 2024	16	0 – 54	50	N/A	200	Runoff/leaching from natural deposits; industrial waste
Color	Quarterly 2024	ND	ND	15	N/A	N/A	Natural occurring organic materials
Odor	Quarterly 2024	ND	ND	3	N/A	N/A	Natural occurring organic materials

Sampling results for US EPA UNREGULATED MONITORING RULE (UCMR 5) (SWRCB DDW PFOA/PFOS)
All Public Water Systems (PWSs) serving 10,000 or more service connections are required by US EPA to participate in this program. This data serves as a primary source of occurrence and exposure information that the US EPA uses to develop regulatory decisions. Large PWSs pay for their own testing costs.

*In 2024, our water system exceeded the MCL for Disinfection Byproducts (DBP). The MCL is based on the running annual average (RAA) of four quarters' worth of sample data. DBPs are formed as a by-product of drinking water chlorination. This chemical reaction occurs when chlorine combines with naturally occurring organic matter in water. The results of these tests revealed levels exceeding the MCL (Maximum Contaminant Level). The MCL is 80 µg/L for TTHMs (Total Trihalomethanes) and 60 µg/L for HAA5 (Haloacetic Acids). Some people who drink water containing DBPs in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous systems, and may have an increased risk of getting cancer. We are in the process of exploring the various options to reduce DBPs in your water supply.

Annual Water Quality Report

Published June 2025

Translations Available

The City of American Canyon's 2024 Annual Water Quality Report will be available in Spanish and Tagalog at **AmericanCanyon.gov/WaterQuality** by July 1, 2025.

*El Informe anual sobre la calidad del agua de 2024 de la ciudad de American Canyon estará disponible en **AmericanCanyon.gov/WaterQuality** antes del 1 de julio de 2025.*

*Ang 2024 Taunang Ulat sa Kalidad ng Tubig ng Lungsod ng American Canyon ay magiging available sa **AmericanCanyon.gov/WaterQuality** bago ang Hulyo 1, 2025.*

Rate Assistance Available

Rate assistance programs are available for qualifying customers.
Visit **AmericanCanyon.gov/Assistance** for more information.

Customer Water Portal

American Canyon uses Advanced Metering Infrastructure (AMI) to help conserve and prevent water loss. To empower our utility customers, we provide a Customer Water Usage Portal with several capabilities, including water tracking, comparison data and alerts to notify you of high water consumption. Learn more and create your account at **AmericanCanyon.gov/MyWaterPortal.**

CITY OF AMERICAN CANYON

Visit **AmericanCanyon.gov** for more information.

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APPENDIX G

CITY MUNICIPAL CODE WATER CONSERVATION PLAN CHAPTER 13.14

Chapter 13.14 WATER CONSERVATION PLAN

13.14.010 Title.

This chapter shall be known as the "Water Conservation Plan" of the city of American Canyon and may be so cited. This chapter serves as the city's water shortage contingency plan.

13.14.020 Purpose and intent.

The purpose of this chapter is to have a plan for water conservation resulting from a reduced supply of water such as may result from drought, water supply shortages, or limitations of water delivery conditions.

Nothing in this chapter will preclude the city council from passing an emergency resolution for the immediate curtailment of water use by its customers due to water supply shortages and delivery limitations caused by catastrophic events and conditions, either natural or unnatural.

In the event any provision of this chapter conflicts or overlaps with any mandatory state regulation related to water conservation, the most stringent shall apply.

(Ord. 2022-06 § 1, 2022.)

13.14.030 Definitions.

The terms used in this chapter shall have the following meanings:

"City" means the city of American Canyon acting by and through the city of American Canyon public works department as operator of the city of American Canyon water and recycled water systems.

"Customer" means any person, firm, partnership, association, corporation, company, organization, property, or governmental entity, whether within or outside the geographic boundaries of the city of

American Canyon, who uses water supplied by the city.

"Essential water use" means water necessary for human consumption, sanitation, and fire protection. All other uses of water that are not specifically required to meet these needs shall be considered non-essential.

"GPD" means gallons per day.

"Low-flow toilet" means a toilet that uses no more than 1.6 gallons of water per flush or less.

"Manager" is the city manager of the city of American Canyon.

"Nonresidential uses" means all other uses not classified as residential pursuant to Section 19.05.040.

"Ornamental" or "decorative" means a water feature where artificially supplied open water performs solely an aesthetic function. Ornamental (or decorative) water features do not include recreational water features, such as swimming pools and spas.

"Maintenance and utilities director" is the public works department head of the city of American Canyon.

"Recycled water" means water treated in accordance with Title 22, Section 60301 et seq., of the California Code of Regulations and suitable for reuse under the circumstances outlined.

"Residential uses" means all those uses classified as residential pursuant to Section 19.05.040.

"Turf" means a species of grass that was developed to be used as a lawn together with the surface layer of earth held together by its roots.

"Water" means potable water.

(Ord. 2022-06 § 1, 2022.)

13.14.040 Authorization.

The manager or designee is authorized and directed to implement the applicable provisions of this chapter upon adoption of a city council resolution determining that such implementation is necessary to protect the public health, safety and welfare.

(Ord. 2022-06 § 1, 2022.)

13.14.050 Application.

The provisions of this chapter shall apply to all persons, customers and properties served by the city, including expressly those outside the geographic boundaries of the city of American Canyon.

(Ord. 2022-06 § 1, 2022.)

13.14.060 Water waste prohibitions.

The following uses of water are defined as "waste of water" and are absolutely prohibited:

(A) Failing to repair a leak and/or otherwise permit the escape of water through breaks or leaks within the customer's plumbing or private distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of seventy-two hours after the customer discovers such a break or leak or receives notice from the city, is a reasonable time within which to correct such a break or leak or, at a minimum, to stop the flow of water from such break or leak.

(B) Use water to irrigate grass, lawns, groundcover, shrubbery, crops, trees, or other vegetation or in such a manner as to result in runoff to any gutter, ditch, drain or impermeable surface. Every customer is deemed to have his or her water system under control at all times, to know the manner and extent of his or her water use and any run-off, and to employ available alternatives to apply irrigation water in an efficient manner.

(C) Washing cars, boats, trailers or other vehicles and machinery directly with a hose not equipped with a shutoff nozzle.

(D) Water for non-recycling decorative water fountains.

(E) Water for single-pass evaporative cooling systems for air conditioning in all connections installed after the effective date of the ordinance codified in this chapter, unless required for health or safety reasons.

(F) Water for non-recirculating conveyor car wash systems, industrial clothes wash systems, and/or other commercial purposes for which recirculated or recycled water can safely and effectively serve the same purpose.

(G) Water for the irrigation of turf for nonresidential uses.

(H) Water for the flushing of toilets for nonresidential uses with the exception of water for flushing low-flow toilets and/or as provided by Section 13.14.110.

(I) The use of water for earth compaction, dust control, or other construction use, including the testing of new sewer lines unless the water is obtained from a source expressly approved by the maintenance and utilities director; provided, however, notwithstanding the foregoing, that water may be used for purposes of testing new water service lines.

(J) Withdrawal of water from fire hydrants within the service area of the city, except for purposes of fire-fighting, water system maintenance, and other uses as permitted by the city.

(K) All restaurants, hotels, cafés, cafeterias, bars, or other public places where food or drink are served and/or purchased are to serve water to customers only when specifically requested by the customer.

(L) All 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 guestroom using clear and easily understood language.

(M) The irrigation with water of landscapes outside of newly constructed homes and buildings in a manner inconsistent with Chapter 16.14.

(N) Use of water that is inconsistent with state or federal regulations.

(Ord. 2022-06 § 1, 2022.)

13.14.065 Recycled water service required

Following a public hearing, the city's nonresidential water customers whose properties may be served by recycled water shall connect their property to recycled water for those uses for which the use of potable domestic water would be deemed a waste or unreasonable use of water as specified in Division 7, Chapter 7, of the California Water Code (Section 13550 et seq.). Recycled water customers shall pay for recycled water at the rate established by the city council.

As of the effective date of the ordinance, or January 1, 2025, whichever comes later, recycled water customers shall pay the meter charges and quantity rates for recycled water service as set forth below:

Water Meter Charges					
	01/01/25	*01/01/26*	*01/01/27*	*01/01/28*	*01/01/29*
< 1" meter	*$38.89*	*$42.78*	*$47.05*	*$49.41*	*$51.88*
1" meter	*$64.81*	*$71.29*	*$78.42*	*$82.34*	*$86.46*
1 1/2" meter	*$129.62*	*$142.58*	*$156.84*	*$164.69*	*$172.92*
2" meter	*$207.40*	*$228.14*	*$250.95*	*$263.50*	*$276.67*
3" meter	*$414.79*	*$456.27*	*$501.90*	*$526.99*	*$553.34*
4" meter	*$648.11*	*$712.92*	*$784.22*	*$823.43*	*$864.60*
6" meter	*$1,296.23*	*$1,425.85*	*$1,568.43*	*$1,646.85*	*$1,729.20*
8" meter	*$2,073.96*	*$2,281.36*	*$2,509.49*	*$2,634.97*	*$2,766.71*
Quantity Rates ($/hcf)					
	01/01/25	*01/01/26*	*01/01/27*	*01/01/28*	*01/01/29*
Delivered	*$3.14*	*$3.46*	*$3.80*	*$3.99*	*$4.19*
Self-Haul	*$1.88*	*$2.07*	*$2.28*	*$2.39*	*$2.51*

Effective January 1, 2030, and on every January 1st thereafter, wastewater service charges will be adjusted by the percent change in the Bay Area Consumer Price Index over the previous calendar year, or by three percent, whichever is less.

(Ord. No. 2024-05 Section 5; Ord. 2022-06 § 1, 2022.)

13.14.070 Water conservation stages.

The intent of this section is to provide for the escalation of customer demand management strategies that may be necessary due to an emergency caused by drought and/or water supply shortages. There are six stages of strategies, each of which builds upon its predecessor stage and are to be implemented as the severity of conditions increase. Stage 6 can be implemented at any time due to catastrophic events and conditions, either natural or unnatural, including flooding, major fire emergencies, earthquakes,

regional power outages, water contamination, and emergencies other than water shortage. No customer of the city shall make, cause, use, or permit the use of water from the city for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this chapter, or in an amount in excess of what is permitted in accordance with the provisions of this chapter. The reductions shall be based upon the amount of water used during that base period defined as the amount of water used on a customer's property during the corresponding monthly billing period in the previous year, or other year as may be designated by the city council. New services or services without a base year billing history shall be allotted on comparable customer usage.

(A) Stage 1—Voluntary Conservation. The intent of Stage 1 is to achieve an overall system-wide demand reduction of ten percent. The city council may, by resolution, declare a "Drought Emergency Stage 1 (Voluntary Conservation)" upon recommendation by the manager and based on water supply and delivery projections by the maintenance and utilities director, that an overall system-wide reduction of ten percent is necessary. During Stage 1, all water customers of the city shall be requested to implement the following best practices:

(1) Apply irrigation water only during the evening and early morning hours to reduce evaporation losses.

(2) Utilize water conservation incentive, rebate and giveaway programs to replace water guzzling plumbing fixtures and appliances with water efficient models.

(3) Utilize city information regarding using water efficiently, reading water meters, repairing ordinary leaks, and water efficient landscape.

(4) Wash automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment during the evening and early morning hours to reduce evaporation losses. Such washing shall be done with a hand-held bucket, or hand-held hose equipped with a positive shutoff nozzle used for quick rinses.

(5) Reduce monthly demand by ten percent when compared to the same time period in the established base year.

(B) Stage 2—Mandatory Compliance—Water Alert. The intent of Stage 2 is to achieve an overall system-wide demand reduction of twenty percent. The city council may, by resolution, declare a "Drought Emergency Stage 2 (Mandatory Compliance—Water Alert)" upon recommendation by the manager and based on water supply and delivery projections by the maintenance and utilities director, that an overall system-wide reduction of twenty percent is necessary. In addition to the mandatory twenty percent

reduction for each water customer, and in addition to the requirements in Stage 1, the following activities shall be prohibited:

(1) Gardening and landscape irrigation utilizing individual sprinklers or sprinkler systems on lawns, gardens, landscaped areas, trees, shrubs, or other plants except as expressly provided for by resolution of the city council.

(2) The washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment except as expressly allowed by the adoption of a resolution by city council.

(3) The washing of sidewalks, driveways, parking areas, tennis courts, patios, or other paved areas except as expressly allowed by the adoption of a resolution by city council.

(4) The irrigation of turf on street medians with water.

(5) The use of water to fill a new or existing swimming pool, spa, pond, or similar recreational basin of water.

(6) The operation of any ornamental fountain or other structure making similar or otherwise ornamental use of water outside.

(C) Stage 3—Mandatory Compliance—Water Emergency. The intent of Stage 3 is to achieve an overall system-wide demand reduction of thirty percent. The city council may, by resolution, declare a "Drought Emergency Stage 3 (Mandatory Compliance—Water Emergency)" upon recommendation by the manager and based on water supply and delivery projections by the maintenance and utilities director, that an overall system-wide demand reduction of thirty percent is necessary. In addition to a mandatory reduction of thirty percent for each water customer, and in addition to the requirements in Stages 1 and 2, the following activities shall be prohibited:

(1) Planting any new landscaping, except for native, drought-tolerant species as defined by Chapter 16.22.

(D) Stage 4—Mandatory Compliance—Critical Water Emergency. The intent of Stage 4 is to achieve an overall system-wide demand reduction of forty percent. The city council may, by resolution, declare a "Drought Emergency Stage 4 (Mandatory Compliance—Critical Water Emergency)" upon recommendation by the manager and based on water supply and delivery projections by the maintenance and utilities director, that an overall system-wide demand reduction of forty percent is

necessary. In addition to the mandatory conservation goals for each water customer, and in addition to the requirements in Stages 1, 2, and 3, the following activities shall be prohibited:

(1) Residential development unless the developer has submitted a complete building permit application to the city prior to the Stage 4 declaration. Building permit applications may proceed with a deferral of landscape installation, until the water shortage level has been lifted.

(2) Linen/towel exchanges more frequently than once every three nights or for the entire stay, whichever is shorter, except for health and safety.

(E) Stage 5—Mandatory Compliance—Severe Water Emergency. The intent of Stage 5 is to achieve an overall system-wide demand reduction of fifty percent. The city council may, by resolution, declare a "Drought Emergency Stage 5 (Mandatory Compliance—Severe Water Emergency)" upon recommendation by the manager and based on water supply and delivery projections by the maintenance and utilities director, that an overall system-wide demand reduction of fifty percent is necessary. During Stage 5, mandatory water rationing will occur on a property by property basis. Regardless of water consumption in the prior or other base year, the city council may set water allocation amounts based on minimum health and safety standards. In addition to the mandatory conservation goals for each water customer, and in addition to the requirements in Stages 1, 2, 3 and 4, the following activities shall be prohibited:

(1) The use of water outside of a home or business except as expressly provided for by resolution of the city council.

(2) Use of water in excess of the allocation to a property.

(F) Stage 6—Mandatory Compliance—Catastrophic Interruption of Water Supplies. The intent of Stage 6 is to achieve an overall system-wide demand reduction of greater than fifty percent. The city council may, by resolution, declare a "Drought Emergency Stage 6 (Mandatory Compliance—Catastrophic Interruption of Water Supplies)" upon recommendation by the manager and based on water supply and delivery projections by the maintenance and utilities director, that an overall system-wide demand reduction of greater than fifty percent is necessary. In addition to the mandatory conservation goals for each water customer, and in addition to the requirements in Stages 1, 2, 3, 4, and 5, the following activities shall be prohibited:

(1) Non-Essential Water Use. Water use is restricted to essential water uses only.

(Ord. 2022-06 § 1, 2022.)

13.14.080 Mandatory conservation phase implementation.

After the city council, by resolution, declares a Stage 1, 2, 3, 4, 5 or 6 Drought Emergency, the manager shall order that the appropriate stage of water conservation be implemented in accordance with the applicable provisions of this chapter. Said order shall be made by public announcement; shall be published a minimum of one time in a daily newspaper of general circulation. The city council shall receive a report at least monthly, noticed on a city council agenda, regarding the city's water supply situation as long as the drought conditions remain in effect.

(Ord. 2022-06 § 1, 2022.)

13.14.090 Duration of conservation stages.

Mandatory stages shall be effective upon the effective date of the ordinance codified in this chapter and may be implemented as authorized by city council resolution. Current conservation stages as authorized by city council will be modified at such time that conditions indicate a more or less restrictive stage is necessary.

(Ord. 2022-06 § 1, 2022.)

13.14.100 Drought Surcharge

(A) **Customers will receive prior notification of the standard allotment basis, applicable rates, and the opportunity to request exceptions to the standard allotment basis.**

(B) **Water use beyond the maximum allowed for each water conservation stage shall be subject to a drought surcharge pursuant to the schedule set forth below.** ***The customer of record may request an***

increase in this basic allotment as set forth in Section 13.14.110 hereof. Application forms and instructions will be available at the American Canyon City Hall.

(C) **In addition to the quantity rates set forth in ACMC 13.06.040.B, each customer shall pay, during each billing period, a drought surcharge for water delivered in excess of the basic allotment as follows:**

	01/01/25	*01/01/26*	*01/01/27*	*01/01/28*	*01/01/29*
Stage 1	*$0.35*	*$0.44*	*$0.53*	*$0.58*	*$0.62*
Stage 2	*$0.79*	*$0.98*	*$1.19*	*$1.30*	*$1.39*
Stage 3	*$1.36*	*$1.68*	*$2.03*	*$2.23*	*$2.39*
Stage 4	*$2.12*	*$2.61*	*$3.16*	*$3.46*	*$3.71*
Stage 5	*$3.17*	*$3.92*	*$4.75*	*$5.20*	*$5.57*
Stage 6	*$4.76*	*$5.88*	*$7.12*	*$7.79*	*$8.36*

Customers whose water usage falls in Tier 1 as set forth in in ACMC 13.06.040.B are assumed to have maximized their conservation effort and will not be subject to a drought surcharge if their water consumption is not further reduced.

In addition to the drought surcharge, if drought usage exceeds the allowed allotment, a warning will be issued and enforcement actions may be taken as described in Section 13.14.120.

(Ord. No. 2024-05 Section 4; Ord. 2022-06 § 1, 2022.)

Cross References

Section 13.14.120(A)

13.14.110 Exceptions and application procedures for exceptions.

All water use associated with the operation and maintenance of fire suppression equipment or employed by the city for water quality flushing and sanitation purposes shall be exempt from the provisions of this chapter. Use of water supplied by a private well or from a rain water utilization system is also exempt.

Any customer of the city may make written application for an exception to uses and activities prohibited by this chapter. Said application shall describe in detail why applicant believes an exception is justified.

(A) The manager may grant exceptions for use of water otherwise prohibited or required by this section upon finding and determining that failure to do so would cause an emergency condition affecting the health, sanitation, fire protection, or safety of the applicant or public or cause an unnecessary and undue hardship on applicant or the public, including, but not limited to, adverse economic impacts, such as loss of production or jobs.

(B) In the event of an appeal of a drought surcharge, customers who can clearly demonstrate that they have taken steps to reduce their water consumption (by installing water-efficient appliances, drip irrigation, drought-tolerant landscaping, etc.) shall be considered favorably in granting waivers.

(C) No increase in the basic water allotment shall be granted unless the customer has installed all water-saving devices which are feasible. Water-saving devices include: (1) ultra-low flush toilets utilizing 1.6 gallons per flush or less; (2) low-flow shower heads; (3) low-flow faucet restrictors utilizing two gallons per minute or less; and (4) drip irrigation systems.

(D) The decision of the manager may be appealed to the city council by submitting a written appeal to the city clerk within fifteen calendar days of the date of the decision. Upon granting any appeal, the city council may impose any conditions it determines to be just and proper. Exceptions granted by the city council shall be prepared in writing and the city council may require the exception be recorded at applicant's expense.

(Ord. 2022-06 § 1, 2022.)

Cross References

Section 13.14.060(H)

Section 13.14.100(B)

13.14.120 Violation—Enforcement.

The violation of each provision of this chapter, and each separate violation thereof, shall be deemed a separate offense, and shall be enforced accordingly.

(A) Any customer that violates any provision of this chapter shall, in addition to the imposition of the drought surcharge rates of Section 13.14.100 hereof, receive a personal contact by the city at the address of the water service. If personal contact is unsuccessful, written notice of the violation, including a date that the violation is to be corrected, may be left on the premises, with a copy of the notice sent by certified mail to the customer.

(B) If after issuance of the written warning, the manager determines that the customer has continued or is continuing to violate the provisions of this chapter, the manager may authorize and implement installation of a flow restricting device on the service line or reduce the amount of water available to the customer. Any costs incurred by the city to authorize and implement the flow restricting device or reduce the amount of water available to the customer shall be borne by the customer. The flow restricting device shall be removed and the prior water supply amount resumed no sooner than sixty days after the date of the installation of the flow restricting device or a reduction in water available, provided that no further violations have occurred within that time.

(C) If after implementation of a flow restricting device or reduction of water available to a customer, the customer continues to violate the provisions of the chapter, the city may disconnect the service to the customer for a period of three days. All costs or expenses incurred by the city for enforcement of this section shall be borne by the customer.

(D) The unauthorized use of water following a disconnection of service pursuant to subsection C above, or any other unauthorized use of water from a fire hydrant or other use bypassing an installed meter, shall be subject to an automatic fine of two thousand five hundred dollars for the first offense and five thousand dollars for the second offense.

(Ord. 2022-06 § 1, 2022.)

Cross References

Section 13.14.100(C)

Section 13.14.130

Section 13.14.140

13.14.130 Violation—Penalties.

In addition to all other remedies provided herein, any person who violates any provision of this chapter after having received a written notice to refrain as provided in Section 13.14.120, is guilty of an infraction. The violation of each provision of this chapter and each separate violation thereof shall be deemed a separate offense and shall be punishable pursuant to Chapter 1.24.

(Ord. 2022-06 § 1, 2022.)

13.14.140 Violation—Additional remedy.

As an additional remedy, the violation of any provision of this chapter by any person who has received more than one written warning pursuant to Section 13.14.120 to refrain from the same or any other violation under this chapter in one calendar year shall be deemed, and is declared to be, a public nuisance and may be subject to abatement in accordance with Chapter 8.04 of the city of American Canyon Municipal Code.

(Ord. 2022-06 § 1, 2022.)

APPENDIX H

CITY MUNICIPAL CODE WATER EFFICIENT LANDSCAPING CHAPTER 16.14

Chapter 16.14 WATER-EFFICIENT LANDSCAPING

16.14.010 Purpose.

This chapter defines the requirements for completing water-efficient final landscape plans, in compliance with Chapter 19.22 of the municipal code. The documentation described is intended to implement the landscape efficiency standards set by the Water Conservation in Landscaping Act of 2006 (AB 1881).

16.14.020 Applicability.

(A) Applicability. Final landscape plans shall be required for the following landscape projects:

(1) New construction and rehabilitated landscapes for public agency projects, private development projects and developer-installed single-family and multifamily projects, requiring a building permit, plan check or design permit;

(2) Cemeteries. Recognizing the special landscape management needs of cemeteries, new and rehabilitated cemeteries are limited to Sections 16.14.070, 16.14.140 and 16.14.160; and existing cemeteries are limited to Sections 16.14.160 and 16.14.170.

(B) This chapter does not apply to:

(1) Registered local, state or federal historical sites;

(2) Ecological restoration projects that do not require a permanent irrigation system;

(3) Plant collections, as part of botanical gardens and arboretums open to the public.

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.040

Section 16.14.160(B)

16.14.030 Review and approval.

Final landscape plans shall be subject to review and approval by the community development director.

(Ord. 2015-05 § 2, 2015.)

16.14.040 Definitions.

The terms used in this chapter have the meaning set forth below:

"Applied water" means the portion of water supplied by the irrigation system to the landscape.

"Automatic irrigation controller" means an automatic timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

"Backflow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

"Bay-Friendly Landscape Guidelines" means the most recent version of the guidelines developed by StopWaste.Org for use in the professional design, construction and maintenance of landscapes.

"Bay-Friendly Landscaping Scorecard" means the most recent version of the Bay-Friendly Landscaping points system developed by StopWaste.Org.

"Certificate of completion" means the document required under Section 16.14.180.

"Certified irrigation designer" means a person certified to design irrigation systems by an accredited academic institution, a professional trade organization or other program such as the U.S. Environmental Protection Agency's WaterSense Irrigation Designer Certification Program and Irrigation Association's Certified Irrigation Designer Program.

"Certified landscape irrigation auditor" means a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the U.S. Environmental Protection Agency's WaterSense Irrigation Auditor Certification Program and Irrigation Association's Certified Landscape Irrigation Auditor Program.

"Check valve" or "anti-drain valve" means a valve located under a sprinkler head, or other location in the irrigation system, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.

"City" means the city of American Canyon and its representatives.

"Common interest developments" means community apartment projects, condominium projects, planned developments, and stock cooperatives per Civil Code Section 1351.

"Compost" is the product of controlled biological decomposition of organic materials, often including urban plant debris and food waste. It is an organic matter resource that has the unique ability to improve the chemical, physical and biological characteristics of soils or growing media. It contains plant nutrients but is typically not characterized as a fertilizer. Excerpted from U.S. Compost Council, Field Guide to Compost Use.

"Conceptual landscape plan" means a preliminary landscape plan submitted to the city for review with a discretionary application.

"Conversion factor (0.62)" means the number that converts acre-inches per acre per year to gallons per square foot per year.

"Drip irrigation" means any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

"Drought resistant soil" means soil that has been managed, by amending with compost and covering with mulch, for example, to maximize rainfall infiltration, increase the soil's capacity to hold water, and allow for plant roots to penetrate and proliferate such that the landscape can survive with less than optimal water (i.e., less than MAWA).

"Ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

"Effective precipitation (Eppt)" or "usable rainfall" means the portion of total precipitation which becomes available for plant growth.

"Emitter" means a drip irrigation emission device that delivers water slowly from the system to the soil.

"Established landscape" means the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

"Establishment period of the plants" means the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth.

"Estimated total water use (ETWU)" means the total water used for the landscape as described in Section 492.4.

"ET adjustment factor (ETAF)" means a factor of 0.7, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.

"Evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

"Final landscape plan" means a landscape plan submitted to the city for review and issuance of building permits and contains the same elements as the conceptual landscape plan.

"Flow rate" means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

"Hardscapes" means any durable material (pervious and non-pervious).

"High-flow sensors" or "flow meters" detect and report high flow conditions created by system damage or malfunction.

"Homeowner-provided landscaping" means any landscaping either installed by a private individual for a single-family residence or installed by a licensed contractor hired by a homeowner. A homeowner, for purposes of this chapter, is a person who occupies the dwelling he or she owns. This excludes speculative homes, which are not owner-occupied dwellings.

"Hydrozone" means a portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.

"Infiltration rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).

"Invasive plant species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources.

"Irrigation audit" means an in-depth evaluation of the performance of an irrigation system conducted by a certified landscape irrigation auditor.

"Irrigation efficiency (IE)" means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices.

"Irrigation survey" means an evaluation of an irrigation system that is less detailed than an irrigation audit. An irrigation survey includes, but is not limited to: inspection, system test, and written recommendations to improve performance of the irrigation system.

"Irrigation water use analysis" means an analysis of water use data based on meter readings and billing data.

"Landscape architect" means a person who holds a license to practice landscape architecture in the state of California Business and Professions Code Section 5615.

"Landscape area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the maximum applied water allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone

walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

"Landscape contractor" means a person licensed by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

"Landscape documentation package" means the documents required under Section 16.14.050.

"Landscape project" means total area of landscape in a project as defined in "Landscape area" for the purposes of this chapter, meeting requirements under Section 16.14.020.

"Lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

"Lawn" means an area of short, mown grass in a yard, garden, or park.

"Low volume irrigation" means the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

"Main line" means the pressurized pipeline that delivers water from the water source to the valve or outlet.

"Maximum applied water allowance (MAWA)" means the upper limit of annual applied water for the established landscaped area as specified in Section 16.14.070. It is based upon the area's reference evapotranspiration, the ET adjustment factor, and the size of the landscape area.

"Microclimate" means the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.

"Mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

"Mulch" means any organic material such as leaves, bark, arbor or wood chips, recycled wood waste, straw, compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose

and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

"Native species" means plants from the local microclimate or Northern California species.

"New construction" means, for the purposes of this chapter, a new building with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.

"Operating pressure" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

"Overhead sprinkler irrigation systems" means systems that deliver water through the air (e.g., spray heads and rotors).

"Overspray" means the irrigation water which is delivered beyond the target area.

"Permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscapes.

"Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.

"Plant factor" or "plant water use factor" is a factor that, when multiplied by ETo, estimates the amount of water needed by plants.

"Precipitation rate" means the rate of application of water measured in inches per hour.

"Project applicant" means the individual or entity submitting a landscape documentation package required under Section 16.14.050, to request a permit, plan check, or design permit from the city. A project applicant may be the property owner or designee.

"Rain sensor" or "rain sensing shutoff device" means a component which automatically suspends an irrigation event when it rains.

"Record drawing" or "as-builts" means a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

"Recreational area" means publicly owned or publicly accessible areas dedicated to active play such as parks, sports fields, and golf courses where turf provides a playing surface.

"Recycled water," "reclaimed water," or "treated sewage effluent water" means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.

"Reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year as represented in Section 16.14.070, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the maximum applied water allowance so that regional differences in climate can be accommodated.

"Rehabilitated landscape" means any re-landscaping project that requires a permit, plan check, or design permit, meets the requirements of Section 16.14.020, and the modified landscape area is equal to or greater than two thousand five hundred square feet, is fifty percent of the total landscape area, and the modifications are completed within one year.

"Runoff' means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

"Soil moisture sensing device" or "soil moisture sensor" means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.

"Soil texture" means the classification of soil based on its percentage of sand, silt, and clay.

"Special landscape area (SLA)" means an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.

"Sprinkler head" means a device which delivers water through a nozzle.

"Static water pressure" means the pipeline or municipal water supply pressure when water is not flowing.

"Station" means an area served by one valve or by a set of valves that operate simultaneously.

"Swing joint" means an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.

"Turf" means a species of grass that was developed to be used as a lawn together with the surface layer of earth held together by its roots.

"Valve" means a device used to control the flow of water in the irrigation system.

"Water conserving plant species" means a plant species identified as having a low plant factor. "Water feature" means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied).

"Watering window" means the time of day irrigation is allowed.

"WUCOLS" means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, 2100.

(Ord. 2015-05 § 2, 2015.)

16.14.050 Water-efficient landscape plans.

(A) Prior to issuance of a building permit, the applicant shall submit a final landscape documentation package to the community development department. The final landscape documentation package, submitted as part of the final landscape plan, shall include the following:

(1) Project information:

(a) Date;

(b) Applicant name, address, telephone, email;

(c) Property owner name, address, telephone, email;

(d) Project address (if available, parcel and/or lot number(s));

(e) Total landscape area (square feet);

(f) Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed);

(g) Water supply type (e.g., potable, recycled, well);

(h) Checklist of all documents in landscape documentation package;

(i) Applicant signature and date with statement, "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete landscape documentation package."

(2) Water-efficient landscape worksheet:

(a) Hydrozone information table;

(b) Water budget calculations:

(i) Maximum applied water allowance (MAWA),

(ii) Estimated total water use (ETWU),

(iii) Soil management report,

(iv) Landscape design plan,

(v) Irrigation design plan, and

(vi) Grading design plan.

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.040

Section 19.22.030

16.14.060 General requirements and standards.

(A) General Requirements and Standards.

(1) The setbacks from streets required by the schedule of zoning district regulations shall be fully landscaped except in single-family districts where parking may be permitted as specified in this title.

(2) All landscaped areas shall be protected by six-inch concrete curbing.

(3) Parking and circulation areas shall be landscaped according to the requirements this title.

(4) The use of turf is limited to rear yards of residential projects.

(5) Landscaping should be used to separate parking and vehicle circulation areas from buildings, to provide a visual landscaped foreground for buildings, and to enhance the perimeter of a project.

(6) Live plant materials generally should be used in all landscaped areas.

(7) Landscape planters abutting parking areas shall be sufficiently large to allow for vehicle overhang without extending into the planting area.

(B) Trees.

(1) Landscape plans for sites on major streets should include large-scale street trees, with deep root systems and broad canopies.

(2) Tree planting shall consider passive solar heating and cooling opportunities related to building orientation.

(3) Trees shall be provided in parking lot areas in a manner that provides shading of parked vehicles to the maximum extent feasible.

(4) Trees shall be properly supported. Stakes and ties on trees shall be checked regularly for correct functions. Ties shall be adjusted to avoid creating abrasions or girdling on trunks or branches.

(C) Hard Surfaces. Required planter or landscaped areas may be combined with pedestrian walks and similar hard surface areas, provided that such hard surface areas do not cover more than thirty percent of any required planter or landscaped areas. Ornamental or landscaping rock and gravel areas, artificial turf, or other areas covered with other artificial materials shall be considered hard surface areas for the purpose of this provision.

(D) Slopes.

(1) All manufactured slopes over five feet in height created by grading shall be fully landscaped utilizing a combination of trees, shrubs and groundcover materials.

(2) Stabilizing jute netting or equivalent netting shall be provided in conjunction with the landscape planting and shall fully cover lower slope areas.

(E) Installation.

(1) All landscaping and planter areas shall be installed consistent with an approved water efficient landscape plan prior to final building permit sign-off or granting of an occupancy permit for a project.

(2) Prior to the installation of landscaping in any public right-of-way, the developer shall provide for continued maintenance until such areas are accepted by the city or as defined in a subdivision improvement agreement.

(F) Maintenance. Required landscaped areas shall be continually maintained in good condition and kept clean and weeded. Good maintenance shall be interpreted to include: watering and maintaining

water efficiency, weeding, pruning, insect and disease control, and replacement of plant materials and irrigation equipment as needed to preserve the health and appearance of plant materials.

(Ord. 2015-05 § 2, 2015.)

16.14.070 Water-efficient landscape worksheet.

(A) The applicant shall complete the water efficient landscape worksheet which contains two sections:

(1) A hydrozone information table for the landscape project; and

(2) A water budget calculation for the landscape project. For the calculation of the maximum applied water allowance and estimated total water use, a project applicant shall use the ETo values from the table below:

NAPA County	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
Carneros	0.8	1.5	3.1	4.6	5.5	6.6	6.9	6.2	4.7	3.5	1.4	1.0	45.8

* The values in this table were derived from:

1. California Irrigation Management Information System (CIMIS);

2. Reference Evapotranspiration Zones Map, University of California, Davis - Dept. of Land, Air & Water Resources and California Dept. of Water Resources 1999;

3. Reference Evapotranspiration for California, University of California, Davis - Department of Agriculture and Natural Resources (1987) Bulletin 1922;

4. Determining Daily Reference Evapotranspiration, Cooperative Extension University of California, Davis - Division of Agriculture and Natural Resources (1987), Publication Leaflet 21426.

(B) Water budget calculations shall adhere to the following requirements:

(1) The plant factor used shall be from WUCOLS. The plant factor ranges from 0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.

(2) All water features shall be included in the high water use hydrozone and temporarily irrigated areas shall be included in the low water use hydrozone.

(3) All special landscape areas shall be identified and their water use calculated as described below.

(4) ETAF for special landscape areas shall not exceed 1.0.

(C) Maximum Applied Water Allowance. The maximum applied water allowance shall be calculated using the equation:

MAWA = (ETo) (0.62)[(0.7 x LA) + (0.3 x SLA)]

(D) Estimated Total Water Use. The estimated total water use shall be calculated using the equation below. The sum of the estimated total water use calculated for all hydrozones shall not exceed MAWA.

Where:

ETWU = Estimated Total Water Use per year (gallons)

ETo = Reference Evapotranspiration (inches)

PF = Plant Factor from WUCOLS (see Section 491)

HA = Hydrozone Area [high, medium, and low water use areas] (square feet)

SLA = Special Landscape Area (square feet)

0.62 = Conversion Factor

IE = Irrigation Efficiency (minimum 0.71)

(1) Example ETWU calculation: landscape area is fifty thousand square feet; plant water use type, plant factor, and hydrozone area are shown in the table below. The ETo value is 51.1 inches per year. There are no special landscape areas (recreational area, area permanently and solely dedicated to edible plants, and area irrigated with recycled water) in this example.

Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)*	Hydrozone Area (HA) (square feet)	PF x HA (square feet)
1	High	0.8	7,000	5,600
2	High	0.7	10,000	7,000
3	Medium	0.5	16,000	8,000
4	Low	0.3	7,000	2,100
5	Low	0.2	10,000	2,000
			Sum	24,700

* Plant Factor from WUCOLS

ETWU = (51.1)(0.62)(24,700/0.71 + 0)

= 1,102,116 gallons per year

Compare ETWU with MAWA: For this example MAWA = (51.1) (0.62) [(0.7 x 50,000) + (0.3 x 0)] = 1,108,870 gallons per year. The ETWU (1,102,116 gallons per year) is less than MAWA (1,108,870 gallons per year). In this example, the water budget complies with the MAWA.

(2) Example ETWU calculation: total landscape area is fifty thousand square feet, two thousand square feet of which is planted with edible plants. The edible plant area is considered a special landscape area (SLA). The reference evapotranspiration value is 51.1 inches per year. The plant type, plant factor, and hydrozone area are shown in the table below.

Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)*	Hydrozone Area (HA) (square feet)	PF x HA (square feet)
1	High	0.8	7,000	5,600
2	High	0.7	9,000	6,300
3	Medium	0.5	15,000	7,500
4	Low	0.3	7,000	2,100
5	Low	0.2	10,000	2,000
			Sum	23,500
6	SLA	1.0	2,000	2,000

* Plant Factor from WUCOLS

ETWU = (51.1)(0.62)(23,500/0.71 + 2,000)

= (31.68) (33,099 + 2,000)

= 1,111,936 gallons per year

Compare ETWU with MAWA. For this example:

MAWA = (51.1) (0.62) [(0.7 x 50,000) + (0.3 x 2,000)]

= 31.68 x [35,000 + 600]

= 31.68 x 35,600

=1,127,808 gallons per year

The ETWU (1,111,936 gallons per year) is less than MAWA (1,127,808 gallons per year). For this example, the water budget complies with the MAWA.

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.020(A)(2)

Section 16.14.040

16.14.080 Irrigation efficiency.

For the purpose of determining maximum applied water allowance, average irrigation efficiency is assumed to be 0.71. Irrigation systems shall be designed, maintained, and managed to meet or exceed an average landscape irrigation efficiency of 0.71.

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.110(A)(8)

16.14.090 Soil management report.

(A) In order to create drought resistant soil, reduce runoff and encourage healthy plant growth, a soil management report addressing soil attributes of the project site shall be completed by the applicant, or designee.

(B) The soil management report shall address the soil attributes of the project site and shall include:

(1) Identification of areas of quality topsoil to be protected during construction and/or critical soil limitations such as compaction; water logged soils or wetlands; thin, eroded or erosion prone soils.

(2) A laboratory soil analysis of the soil(s) into which plantings are to be made.

(C) Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.

(D) At a minimum the soil analysis shall include:

(1) Soil texture;

(2) Infiltration rate determined by laboratory test or soil texture infiltration rate table;

(3) pH;

(4) Total soluble salts;

(5) Sodium;

(6) Essential nutrients;

(7) Percent organic matter; and

(8) Recommendations for soil amendments or nutrient applications to ameliorate the soil limitations identified by the analysis and the amount of compost required to bring the soil organic matter content to a minimum of three and one-half percent by dry weight or a minimum application of at least one inch. The required practice of adding compost is waived if the plant palette primarily includes California native species that are adapted to soils with little or no organic matter as documented by a published plant reference.

(E) Specifications for protecting topsoil, ameliorating soil limitations, such as ripping the soil to alleviate soil compaction, and incorporating compost and/or amendments as per recommendations in the soil analysis report.

(F) The applicant, or designee, shall comply with one of the following:

(1) If significant mass grading is not planned, the soil management report shall be submitted to the city as part of the landscape documentation package; or

(2) If significant mass grading is planned, the soil management report shall be submitted to the city as part of the certificate of completion.

(3) The soil management report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.

(4) The applicant, or designee, shall submit documentation verifying implementation of soil management report recommendations to the city with the certificate of completion.

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.100(C)(4)

Section 16.14.180(F)

16.14.100 Landscape design plan.

For the efficient use of water, landscaping shall be carefully designed and planned for the intended function of the project. A landscape design plan meeting the following design criteria shall be submitted as part of the landscape documentation package.

(A) Plant Material.

(1) The estimated total water use of the plant material selected must not exceed the maximum applied water allowance.

(2) Each hydrozone shall have plant materials with similar water use, with the exception of hydrozones with plants of mixed water use, as specified in Section 16.14.110(B)(4).

(3) At least seventy-five percent of the total number of plants in non-turf areas shall require occasional, little or no summer water. All species should be adapted to the climate in which they will be planted, as documented by a published plant reference. If plants are given a range of water needs from "occasional to moderate" for example, the landscape designer must determine if the plant will require either occasional or moderate watering based on site, soil, and climate conditions and categorize the plant appropriately. Sources used to determine climate adaptation and watering requirements may include:

(a) Bornstein, Carol, David Fross and Bart O'Brien, California Native Plants for the Garden.

Qualifying irrigation designation: "occasional," "infrequent," or "drought tolerant."

(b) East Bay Municipal Utility District's publication Plants and Landscapes for Summer Dry Climates.

Qualifying irrigation designation: "occasional," "infrequent" or "no summer water"

(c) Sunset Publishing Corporation Sunset Western Garden Book.

Qualifying irrigation designation: "little or no water"

(d) University of California Cooperative Extension's Guide to Estimating Irrigation Water Needs of Landscape Plantings in CA.

Qualifying irrigation designation: "Low" or "Very Low"

(4) Turf is not allowed on slopes greater than twenty-five percent where the toe of the slope is adjacent to an impermeable hardscape and where twenty-five percent means one foot of vertical elevation change for every four feet of horizontal length (rise divided by run x 100 = slope percent).

(5) Total irrigated areas specified as turf shall be limited to a maximum of twenty-five percent with recreational areas exempted.

(6) A landscape design plan for projects in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per California Public Resources Code Section 4291(a) and (b). Avoid fire-prone plant materials and highly flammable mulches.

(7) Those species identified by the California Invasive Plant Council (CAL-IPC) as invasive in the San Francisco Bay Area shall not be specified.

(8) The architectural guidelines of a common interest development, which include community apartment projects, condominiums, planned developments, and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.

(9) Plant species shall be selected and spaced to allow them to grow to their natural size and shape. Pruning for structural integrity and health of plant is permitted. In addition, plants located in a row or adjacent to buildings, sidewalks, or roads will be spaced between their minimum and maximum mature plant spread according to a published reference plant book and still fit into their planting area without significant overhang. Trees must meet the spacing requirements only when adjacent to buildings, in a row or adjacent to other vertical obstructions. Vines are not subject to spacing requirements.

(10) Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site.

(B) Water Features.

(1) Recirculating water systems shall be used for water features.

(2) Where available, recycled water shall be used as a source for decorative water features.

(3) Surface area of a water feature shall be included in the high water use hydrozone area of the water budget calculation.

(C) Mulch and Amendments.

(1) A minimum three-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, or direct seeding applications where mulch should not be used because it may be harmful. The use of plastic sheeting as a weed barrier is prohibited.

(2) Stabilizing mulching products shall be used on slopes.

(3) The mulching portion of the seed/mulch slurry in hydro-seeded applications shall meet the mulching requirement.

(4) Compost and soil amendments shall be incorporated according to recommendations of the soil report and what is appropriate for the plants selected (see Section 16.14.090).

(5) Ongoing maintenance shall include regular reapplication of mulch to a minimum of three inches.

(D) The landscape design plan, at a minimum, shall:

(1) Delineate and label each hydrozone by number, letter, or other method;

(2) Identify each hydrozone as low, moderate, high water, or mixed water use. Areas of the landscape temporarily irrigated to establish drought tolerant plants shall be included in the low water use hydrozone for the water budget calculation;

(3) Identify recreational areas;

(4) Identify areas permanently and solely dedicated to edible plants;

(5) Identify areas irrigated with recycled water;

(6) Identify type of mulch and application depth;

(7) Identify soil amendments, type, and quantity;

(8) Identify type and surface area of water features;

(9) Identify hardscapes (pervious and non-pervious);

(10) Identify location and installation details of any applicable stormwater best management practices that encourage on-site retention and infiltration of stormwater;

(11) Identify any applicable rain harvesting or catchment technologies (e.g., rain gardens, cisterns, etc.);

(12) Contain the following statement: "I have complied with the criteria of the ordinance and applied them for the efficient use of water in the landscape design plan"; and

(13) Bear the signature of a licensed landscape architect, licensed landscape contractor, or any other person authorized to design a landscape. (See Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the California Business and Professions Code,

Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agriculture Code.)

(Ord. 2015-05 § 2, 2015.)

16.14.110 Irrigation design plan.

For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturers' recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the following design criteria shall be submitted as part of the landscape documentation package.

(A) System.

(1) The irrigation system shall be designed to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.

(a) If the static pressure is above or below the required dynamic pressure of the irrigation system, pressure-regulating devices such as inline pressure regulators, booster pumps, or other devices shall be installed to meet the required dynamic pressure of the irrigation system.

(b) Static water pressure, dynamic or operating pressure, and flow reading of the water supply shall be measured at the point of connection. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted at installation.

(2) Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be required, as close as possible to the point of connection of the water supply, to minimize water loss in case of an emergency (such as a main line break) or routine repair.

(3) Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions are required for all irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain.

(4) Backflow prevention devices shall be required to protect the water supply from contamination by the irrigation system.

(5) The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, nonirrigated areas, hardscapes, roadways, or structures.

(6) Relevant information from the soil management plan, such as soil type and infiltration rate, shall be utilized when designing irrigation systems.

(7) The design of the irrigation system shall conform to the hydrozones of the landscape design plan.

(8) The irrigation system must be designed and installed to meet, at a minimum, the irrigation efficiency criteria as described in Section 16.14.080 regarding the maximum applied water allowance.

(9) In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.

(10) Sprinkler heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations.

(11) Sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.

(12) Swing joints or other riser-protection components are required on all risers subject to damage that are adjacent to high traffic areas.

(13) Check valves or anti-drain valves are required for all irrigation systems.

(14) Narrow or irregularly shaped areas, including turf, less than eight feet in width in any direction shall be irrigated with subsurface irrigation or a low volume irrigation system.

(15) Overhead irrigation shall not be permitted within twenty-four inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The

surfacing of the setback may be mulch, gravel, or other porous material. These restrictions may be modified if:

(a) The landscape area is adjacent to permeable surfacing and no runoff occurs; or

(b) The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping; or

(c) The irrigation designer specifies an alternative design or technology, as part of the landscape documentation package and clearly demonstrates strict adherence to irrigation system design criteria in subsection (A)(8) of this section. Prevention of overspray and runoff must be confirmed during the irrigation audit.

(16) Slopes greater than twenty-five percent shall not be irrigated with an irrigation system with a precipitation rate exceeding three-fourths inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the landscape documentation package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff and erosion must be confirmed during the irrigation audit.

(B) Hydrozone.

(1) Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.

(2) Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.

(3) Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf.

(4) Individual hydrozones that mix plants of moderate and low water use, or moderate and high water use, may be allowed if the plant factor of the higher water using plant is used for calculations.

(5) Individual hydrozones that mix high and low water use plants shall not be permitted.

(6) On the landscape design plan and irrigation design plan, hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each valve, and assign a number to each valve. Use this valve number in the Hydrozone Information

Table (see City of American Canyon Template Water-Efficient Landscaping Worksheet). This table can also assist with the irrigation audit and programming the controller.

(7) The irrigation design plan, at a minimum, shall contain:

(a) Location and size of separate water meters for landscape;

(b) Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices;

(c) Static water pressure at the point of connection to the public water supply;

(d) Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;

(e) Recycled water irrigation systems as specified in Section 19.22.070;

(f) The following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan"; and

(g) The signature of a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized to design an irrigation system. (See Sections 5500.l, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code.)

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.100(A)(2)

16.14.120 Grading design plan.

For the efficient use of water, project site grading shall be designed to minimize soil erosion, runoff, and water waste. A grading plan shall be submitted as part of the landscape documentation package. A comprehensive grading plan prepared by a civil engineer for other city permits satisfies this requirement.

(A) The project applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including:

(1) Height of graded slopes;

(2) Drainage patterns;

(3) Pad elevations;

(4) Finish grade; and

(5) Stormwater retention improvements, if applicable.

(B) The grading design plan shall contain the following statement: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading design plan" and shall bear the signature of a licensed professional as authorized by law.

(Ord. 2015-05 § 2, 2015.)

16.14.130 Irrigation scheduling.

For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

(A) Irrigation scheduling shall be regulated by automatic irrigation controllers.

(B) Operation of he irrigation system outside the normal watering window is allowed for auditing and system maintenance.

(C) For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, flow rate, and current reference evapotranspiration, so that applied water meets the estimated total water use. Total annual applied water shall be less than or equal to maximum applied water allowance (MAWA). Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data.

(D) Parameters used to set the automatic controller shall be developed and submitted for each of the following:

(1) The plant establishment period;

(2) The established landscape; and

(3) Temporarily irrigated areas.

(E) Each irrigation schedule shall consider for each station all of the following that apply:

(1) Irrigation interval (days between irrigation);

(2) Irrigation run times (hours or minutes per irrigation event to avoid runoff);

(3) Number of cycle starts required for each irrigation event to avoid runoff;

(4) Amount of applied water scheduled to be applied on a monthly basis;

(5) Application rate setting;

(6) Root depth setting;

(7) Plant type setting;

(8) Soil type and mulch depth;

(9) Slope factor setting;

(10) Shade factor setting; and

(11) Irrigation uniformity or efficiency setting.

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.180(C)

16.14.140 Landscape and irrigation maintenance schedule.

(A) Landscapes shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted with the certificate of completion.

(B) A regular maintenance schedule shall include, but not be limited to, routine inspection; adjustment and repair of the irrigation system and its components; aerating and dethatching turf areas; replenishing mulch; fertilizing; pruning; weeding in all landscape areas, and removing and obstruction to emission devices. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

(C) Repair of all irrigation equipment shall be done with the originally installed components or their equivalents.

(D) At least one landscaping staff member or contractor shall be trained in the use of Integrated Pest Management (IPM) or is a "Bay-Friendly Qualified Landscape Professional."

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.020(A)(2)

Section 16.14.180(D)

16.14.150 Stormwater management.

All landscape plans shall conform to Chapter 14.28 Stormwater and Pollution Discharge Control Program.

(Ord. 2015-05 § 2, 2015.)

16.14.160 Irrigation audit, irrigation survey, and irrigation water use analysis.

(A) All landscape irrigation audits shall be conducted by a certified landscape irrigation auditor.

(B) For new construction and rehabilitated landscape projects installed after January 1, 2010, as described in Section 16.14.020:

(1) The project applicant shall submit an irrigation audit report with the certificate of completion to the city that may include, but is not limited to: inspection, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule;

(2) The city shall administer programs that may include, but not be limited to, irrigation water use analysis, irrigation audits, and irrigation surveys for compliance with the maximum applied water allowance.

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.020(A)(2)

Section 16.14.180(E)

16.14.170 Effective precipitation.

(A) The city may consider effective precipitation (twenty-five percent of annual precipitation) in tracking water use and may use the following equation to calculate maximum applied water allowance:

MAWA= (ETo - Eppt) (0.62) [(0.7 x LA) + (0.3 x SLA)].

Upon approval of the final landscape documentation package by the city, the project applicant shall:

(1) Receive a permit or approval of the plan check or design permit and record the date of the permit in the certificate of completion;

(2) Submit a copy of the approved final landscape documentation package along with the record drawings, and any other information to the property owner or designee; and

(3) Submit a copy of the water-efficient landscape worksheet to the city.

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.020(A)(2)

16.14.180 Certificate of completion.

The certificate of completion shall include the following:

(A) Project information sheet that contains:

(1) Date;

(2) Project name;

(3) Project applicant name, telephone, and mailing address;

(4) Project address and location; and

(5) Property owner name, telephone, and mailing address.

(B) Certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved landscape Documentation Package:

(1) Where there have been significant changes made in the field during construction, these "as-built" or record drawings shall be included with the certification.

(C) Irrigation scheduling parameters used to set the controller (see Section 16.14.130).

(D) Landscape and irrigation maintenance schedule (see Section 16.14.140).

(E) Irrigation audit report (see Section 16.14.160).

(F) Soil management report, if not submitted with landscape documentation package, and documentation verifying implementation of soil report recommendations (see Section 16.14.090).

(G) The project applicant shall:

(1) Submit the signed certificate of completion to the city for review;

(2) Ensure that copies of the approved certificate of completion are submitted to the city and property owner or designee.

(Ord. 2015-05 § 2, 2015.)

Cross References

Section 16.14.040

APPENDIX I

CITY MUNICIPAL CODE WATER EFFICIENT LANDSCAPING CHAPTER 19.22

Chapter 19.22 WATER-EFFICIENT LANDSCAPING

19.22.010 Purpose.

This chapter is intended to implement the landscape design requirements of the Water Conservation in Landscaping Act of 2006 (AB 1881) and to establish standards for sustainable landscape practices in accordance with the StopWaste.Org Bay Friendly Landscape guidelines. It ensures that urbanized areas are sufficiently augmented by adequate, water-efficient, landscaping and open space in order to:

(A) Shade vehicles in parking lots.

(B) Break up extensive stretches of paving.

(C) Reduce impervious areas.

(D) Provide natural solar insulation for buildings, to screen certain types of land uses where appropriate.

(E) Create interesting and defined entries to facilities.

(F) Soften project perimeters.

(Ord. 2015-05 § 3, 2015.)

19.22.020 Applicability.

(A) Applicability. A conceptual landscape plan shall be required for all entitlements for which design permit approval is required (Chapter 19.41).

(B) This chapter does not apply to:

(1) Registered local, state or federal historical sites.

(2) Ecological restoration projects that do not require a permanent irrigation system.

(3) Plant collections, as part of botanical gardens and arboretums open to the public.

(C) Review and Approval.

(1) Conceptual landscape plans shall be reviewed and approved by the planning commission, except for entitlements subject to the approval of the community development director (pursuant to Chapter 19.40, Review and Approval Procedures).

(2) Final landscape plans, as defined by Chapter 16.13 of the municipal code, shall be subject to review and approval by the community development director.

(Ord. 2015-05 § 3, 2015.)

Cross References

Section 19.22.030

19.22.030 Definitions.

The terms used in this chapter have the meaning set forth below:

"Applied water" means the portion of water supplied by the irrigation system to the landscape.

"Bay-Friendly Landscape Guidelines" means the most recent version of the guidelines developed by StopWaste.Org for use in the professional design, construction and maintenance of landscapes.

"City" means the city of American Canyon and its representatives.

"Conceptual landscape plan" means a preliminary landscape plan submitted to the city for review with a discretionary application.

"Conversion factor (0.62)" means the number that converts acre-inches per acre per year to gallons per square foot per year.

"Drip irrigation" means any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

"Ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

"Estimated total water use (ETWU)" means the total water used for the landscape as described in Section 492.4.

"ET adjustment factor (ETAF)" means a factor of 0.7, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.

"Evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

"Final landscape plan" means a landscape plan submitted to the city for review and issuance of building permits and contains the same elements as the conceptual landscape plan.

"Flow rate" means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

"Hardscapes" means any durable material (pervious and non-pervious).

"Homeowner-provided landscaping" means any landscaping either installed by a private individual for a single-family residence or installed by a licensed contractor hired by a homeowner. A homeowner, for purposes of this chapter, is a person who occupies the dwelling he or she owns. This excludes speculative homes, which are not owner-occupied dwellings.

"Hydrozone" means a portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.

"Infiltration rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).

"Invasive plant species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources.

"Landscape architect" means a person who holds a license to practice landscape architecture in the state of California Business and Professions Code Section 5615.

"Landscape area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the maximum applied water allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

"Landscape contractor" means a person licensed by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

"Landscape documentation package" means the documents required under Section 16.14.050.

"Landscape project" means total area of landscape in a project as defined in "landscape area" for the purposes of this chapter, meeting requirements under Section 19.22.020.

"Lawn" means an area of short, mown grass in a yard, garden, or park.

"Maximum applied water allowance (MAWA)" means the upper limit of annual applied water for the established landscaped area as specified in Section 19.22.060. It is based upon the area's reference evapotranspiration, the ET adjustment factor, and the size of the landscape area.

"Mulch" means any organic material such as leaves, bark, arbor or wood chips, recycled wood waste, straw, compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

"Native species" means plants from the local microclimate or Northern California species.

"New construction" means, for the purposes of this chapter, a new building with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.

"Permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscapes.

"Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.

"Plant factor" or "plant water use factor" is a factor that, when multiplied by ETo, estimates the amount of water needed by plants.

"Project applicant" means the individual or entity submitting a landscape documentation package required under Section 19.22.050, to request a permit, plan check, or design permit from the city. A project applicant may be the property owner or designee.

"Record drawing" or "as-builts" means a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

"Recreational area" means publicly owned or publicly accessible areas dedicated to active play such as parks, sports fields, and golf courses where turf provides a playing surface.

"Recycled water," "reclaimed water," or "treated sewage effluent water" means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.

"Reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year as represented in Section 19.22.060, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the maximum applied water allowance so that regional differences in climate can be accommodated.

"Rehabilitated landscape" means any re-landscaping project that requires a permit, plan check, or design permit, meets the requirements of Section 19.22.020, and the modified landscape area is equal to or greater than two thousand five hundred square feet, is fifty percent of the total landscape area, and the modifications are completed within one year.

"Runoff' means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

"Special landscape area (SLA)" means an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.

"Turf" means a species of grass that was developed to be used as a lawn together with the surface layer of earth held together by its roots.

"Water feature" means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied).

"WUCOLS" means the Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, 2100.

(Ord. 2015-05 § 3, 2015.)

19.22.040 General requirements and standards.

(A) General Requirements and Standards.

(1) The setbacks from streets required by the schedule of zoning district regulations shall be fully landscaped except in single-family districts where parking may be permitted as specified in this title.

(2) All landscaped areas shall be protected by six-inch concrete curbing.

(3) Parking and circulation areas shall be landscaped according to the requirements of this title.

(4) The use of turf in new residential projects is limited to the rear yard.

(5) Landscaping should be used to separate parking and vehicle circulation areas from buildings, to provide a visual landscaped foreground for buildings, and to enhance the perimeter of a project.

(6) Live plant materials generally should be used in all landscaped areas. Bark should only be utilized as mulch, not as a permanent form of groundcover.

(7) Landscape planters abutting parking areas shall be sufficiently large to allow for vehicle overhang without extending into the planting area.

(B) Trees.

(1) Landscape plans for sites on major streets should include large-scale street trees, with deep root systems and broad canopies.

(2) Tree planting shall consider passive solar heating and cooling opportunities related to building orientation.

(3) Trees shall be provided in parking lot areas in a manner that provides shading of parked vehicles to the maximum extent feasible.

(4) Trees shall be properly supported. Stakes and ties on trees shall be checked regularly for correct functions. Ties shall be adjusted to avoid creating abrasions or girdling on trunks or branches.

(C) Hard Surfaces. Required planter or landscaped areas may be combined with pedestrian walks and similar hard surface areas, provided that such hard surface areas do not cover more than thirty percent of any required planter or landscaped areas. Ornamental or landscaping rock and gravel areas, artificial turf, or other areas covered with other artificial materials shall be considered hard surface areas for the purpose of this provision.

(D) Slopes.

(1) All manufactured slopes over five feet in height created by grading shall be fully landscaped utilizing a combination of trees, shrubs and groundcover materials.

(2) Stabilizing jute netting or equivalent netting shall be provided in conjunction with the landscape planting and shall fully cover lower slope areas.

(E) Installation.

(1) All landscaping and planter areas shall be installed consistent with an approved final landscape plan prior to final building permit sign-off or granting of an occupancy permit for a project.

(2) Prior to the installation of landscaping in any public right-of-way, the developer shall provide for continued maintenance until such areas are accepted by the city or as defined in a subdivision improvement agreement.

(F) Maintenance. Required landscaped areas shall be continually maintained in good condition and kept clean and weeded. Good maintenance shall be interpreted to include: watering and maintaining water efficiency, weeding, pruning, insect and disease control, and replacement of plant materials and irrigation equipment as needed to preserve the health and appearance of plant materials.

(Ord. 2015-05 § 3, 2015.)

Cross References

Section 19.14.070(I)(8)

Section 19.22.050(A)(1)(f)

19.22.050 Elements of the conceptual landscape documentation plan.

(A) The conceptual landscape documentation plan, submitted as part of the discretionary application, shall include the following:

(1) Project information:

(a) Date;

(b) Project applicant;

(c) Project address (if available, parcel and/or lot number(s));

(d) Total landscape area (square feet);

(e) Water supply type (e.g., potable, recycled, well);

(f) Landscape requirements identified in Sections 19.22.040 and 19.22.060;

(g) Project contacts to include contact information for the project applicant and property owner.

(2) Water-efficient landscape worksheet in Section 19.22.060:

(a) Hydrozone information table;

(b) Water budget calculations:

(i) Maximum applied water allowance (MAWA),

(ii) Estimated total water use (ETWU).

(3) Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site.

(4) The use of turf in new residential projects is limited to twenty-five percent of the rear yard of each home.

(5) On nonresidential projects, turf is not allowed on slopes greater than twenty-five percent where the toe of the slope is adjacent to an impermeable hardscape and where twenty-five percent means one foot of vertical elevation change for every four feet of horizontal length (rise divided by run x 100 = slope percent).

(6) Total irrigated areas specified as turf shall be limited to a maximum of twenty-five percent with recreational areas exempted.

(7) Turf is prohibited in street medians, traffic islands or bulb outs of any size.

(8) A landscape design plan for projects in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per California Public Resources Code Section 4291(a) and (b). Avoid fire-prone plant materials and highly flammable mulches.

(9) Those species identified by CAL-IPC as invasive in the San Francisco Bay Area shall not be specified.

(10) Landscape plans shall bear the signature of a licensed landscape architect, licensed landscape contractor, or any other person authorized to design a landscape. (See Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the California Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agriculture Code.)

(Ord. 2015-05 § 3, 2015.)

Cross References

Section 19.22.030

19.22.060 Water-efficient landscape worksheet.

(A) A project applicant shall complete the water-efficient landscape worksheet which contains two sections:

(1) A hydrozone information table for the landscape project.

(2) A water budget calculation for the landscape project. For the calculation of the maximum applied water allowance and estimated total water use, a project applicant shall use the ETo values from the table below:

County and City NAPA	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ETo
Carneros	0.8	1.5	3.1	4.6	5.5	6.6	6.9	6.2	4.7	3.5	1.4	1.0	45.8

* The values in this table were derived from:

(1) California Irrigation Management Information System (CIMIS);

(2) Reference Evapotranspiration Zones Map, University of California, Davis - Dept. of Land, Air & Water Resources and California Dept. of Water Resources 1999;

(3) Reference Evapotranspiration for California, University of California, Davis - Department of Agriculture and Natural Resources (1987) Bulletin 1922;

(4) Determining Daily Reference Evapotranspiration, Cooperative Extension University of California, Davis - Division of Agriculture and Natural Resources (1987), Publication Leaflet 21426.

(B) Water budget calculations shall adhere to the following requirements:

(1) The plant factor used shall be from WUCOLS. The plant factor ranges from 0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.

(2) All water features shall be included in the high water use hydrozone and temporarily irrigated areas shall be included in the low water use hydrozone.

(3) All special landscape areas shall be identified and their water use calculated as described below.

(4) ETAF for special landscape areas shall not exceed 1.0.

(C) Maximum Applied Water Allowance. The maximum applied water allowance shall be calculated using the equation:

MAWA = (ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]

(D) Estimated Total Water Use. The estimated total water use shall be calculated using the equation below. The sum of the estimated total water use calculated for all hydrozones shall not exceed MAWA.

Where:

ETWU = Estimated Total Water Use per year (gallons)

ETo = Reference Evapotranspiration (inches)

PF = Plant Factor from WUCOLS (see Section 491)

HA = Hydrozone Area [high, medium, and low water use areas] (square feet)

SLA = Special Landscape Area (square feet)

0.62 = Conversion Factor

IE = Irrigation Efficiency (minimum 0.71)

(Ord. 2015-05 § 3, 2015.)

Cross References

Section 19.22.030

Section 19.22.050(A)(1)(f)

Section 19.22.050(A)(2)

19.22.070 Recycled water.

(A) The installation of recycled water irrigation systems shall allow for the current and future use of recycled water, unless a written exemption has been granted as described in subsection B.

(B) Irrigation systems and decorative water features shall use recycled water unless a written exemption has been granted by the city stating that recycled water meeting all public health codes and standards is not available and will not be available for the foreseeable future.

(C) All recycled water irrigation systems shall be designed and operated in accordance with all applicable local and state laws.

(D) Landscapes using recycled water are considered special landscape areas. The ET adjustment factor for special landscape areas shall not exceed 1.0.

(Ord. 2015-05 § 3, 2015.)

Cross References

Section 16.14.110(B)(7)(e)

19.22.080 Stormwater management.

All landscape plans shall conform to Chapter 14.28 Stormwater and Pollution Discharge Control Program.

(Ord. 2015-05 § 3, 2015.)

APPENDIX J

WATER AND SEWER RATE SCHEDULES

City of American Canyon
Utility Rate Schedule Effective January 1, 2025

All Rates in Accordance with Ordinance 2024-05, Municipal Code 13.06 and 14.04

Customer Category	Variable Unit* Charge ($/unit or 748 gal)	Fixed Meter Charges ($/month)
Single Family Residential		
Tier 1 (0-6 units*)	$7.72	$31.32
Tier 2 (>6 units*)	$8.34	$31.32
Commercial Water Meter		
< 1" meter	$7.90	$31.32
1" meter	$7.90	$31.32
1 ½" meter	$7.90	$58.53
2" meter	$7.90	$91.19
3" meter	$7.90	$178.29
4" meter	$7.90	$276.27
6" meter	$7.90	$548.43
8" meter	$7.90	$875.03
Private Fire Protection	$3.95	$15.66
Raw Water	$3.52	based on meter size (see above)
Temporary Hydrant Meter Recycled	$3.14	$207.40
Recycled Water (self-haul)	$1.88	
Recycled Water Meter		
< 1" meter	$3.14	$38.89
1" meter	$3.14	$64.81
1 ½" meter	$3.14	$129.62
2" meter	$3.14	$207.40
3" meter	$3.14	$414.79
4" meter	$3.14	$648.11
6" meter	$3.14	$1,296.23
8" meter	$3.14	$2,073.96
Sewer		
Single Family Residential	$74.94	per dwelling unit ($/month)
Multi-Family Residential	$48.70	per dwelling unit ($/month)
Commercial	$1.92	$115.21 ($/month)

*1 unit = 748 gallons; the average household uses approximately 10 units per month

APPENDIX K

2025 UWMP CHECKLIST

Retail (x = required)	Wholesale (x = required)	Order	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	1	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 1.1
x	x	1	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.	Plan preparation	n/a	Section 1.1
x	x	2.1	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	n/a	Section 2.1
x	n/a	2.5	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 2.1.1
x	x	2.5	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 2.2
x	x	2.5	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 2.3
x	x	2.4	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 2.4
x	x	2.4	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan preparation	n/a	Section 2.4
x	n/a	2.4	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.	Plan preparation	2-4 R	Section 2.4.1
n/a	x	2.4	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan preparation	2-4 W	N/A
x	x	3	Chapter 3.0	10631(a)	Describe the Supplier service area.	System description	n/a	Section 3.1
x	x	3.3	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System description	n/a	Section 3.2
x	x	3.4	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 3.3.1
x	x	3.4	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 3.3.2
x	x	3.5	Section 3.5	10631(a)	Describe the land uses within the service area… include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	System description and baselines	n/a	Section 3.4
x	Optional	4.2	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	Section 4.2
x	Optional	4.3	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 4.4
x	n/a	4.3	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 4.4.1
x	n/a	4.2	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 4.5
x	n/a	4.2	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 4.3
x	n/a	4.2	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 4.2
x	n/a	4.2	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 4.3
x	x	4.2	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 4.6
n/a	x	5.1	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and targets	n/a	N/A
x	n/a	5.2	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. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and targets	5-1	Section 5.6
x	x	6.1	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 6
x	x	6.1	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	Section 7.4
x	x	6.2	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 supplies and recycled water	6-1	Section 6.2
x	x	6.2	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the 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 6.2
x	x	6.2	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	n/a	Section 6.2
x	x	6.2	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 6.2
x	x	6.2	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin…	Water supplies and recycled water	n/a	Section 6.2
x	x	6.2	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	Section 6.2
x	x	6.2	Section 6.2.2.	10631(b)(4)(C)	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	n/a	Section 6.2
x	x	6.2	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 6.2
x	x	6.1	Section 6.1	10631(b)	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 6.9
x	x	6.2	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 6.7
x	n/a	6.2	Section 6.2.5	10633(a)	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 6.5.2
x	x	6.2	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 6.5.2
x	x	6.2	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 6.5.3
x	x	6.2	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 6.5.4

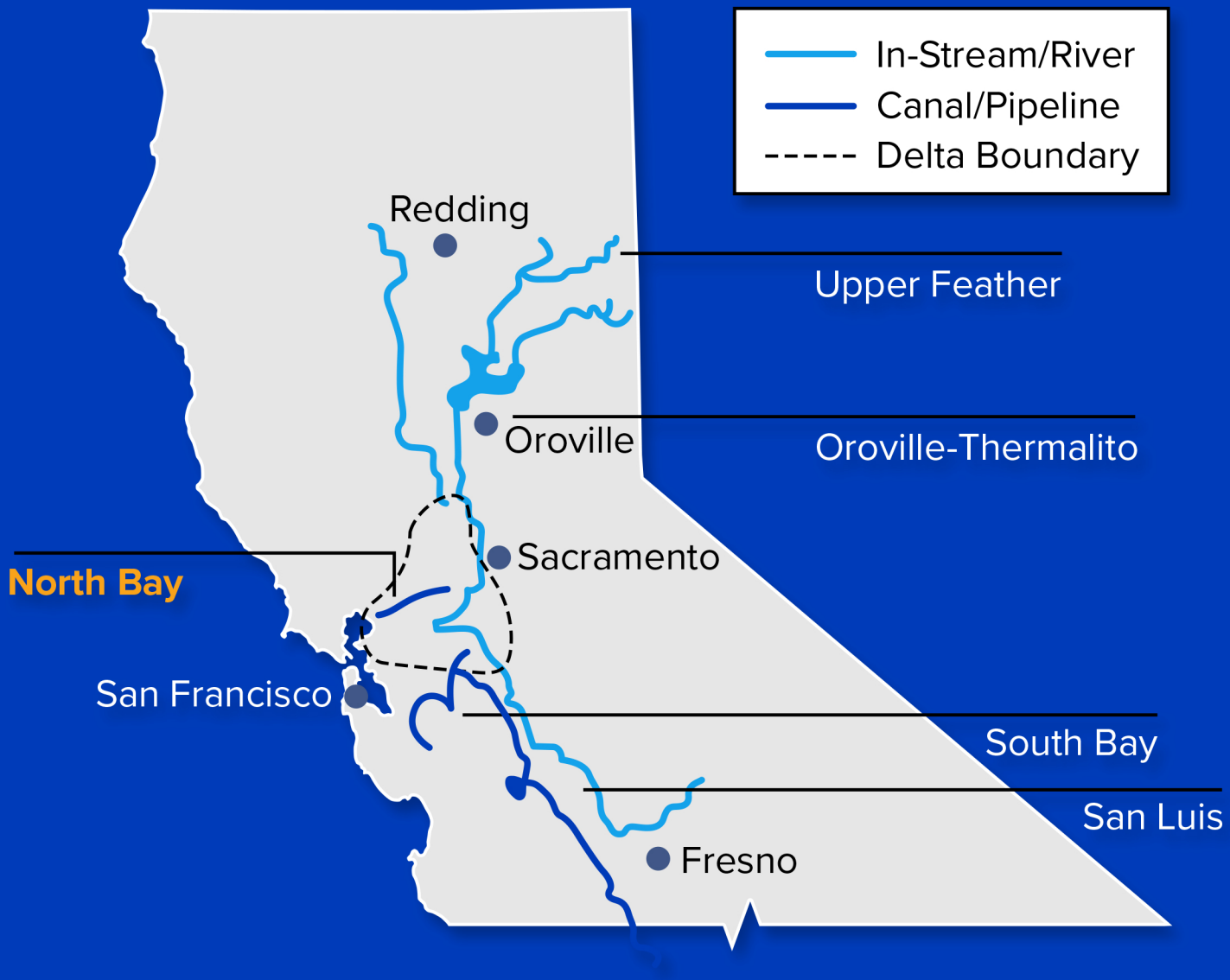
x	x	6.2	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System supplies (recycled water)	6-4 and 6-5	Section 6.5.4
x	x	6.2	Section 6.2.5	10633(f)	Describe the actions that 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 6.5.5
x	x	6.2	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 6.5.5
x	x	6.2	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System supplies	6-7	Section 6.6
x	x	6.2	Section 6.2.10	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 five consecutive water years.	System supplies	6-7	Section 6.8
x	x	6.3	Section 6.3 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 6.11
x		7.1	Section 7.1	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	Section 7.2.1
x	x	7.2	Section 7.2	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 Supplier with the total projected water use over the next 20 years.	Water supply reliability assessment	7-2, 7-3, and 7-4	Section 7.4
x	x	7.2	Section 7.2.3	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 7.2.3
x	x	7.3	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 7.5
x	x	7.3	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 five consecutive years.	Water supply reliability assessment	n/a	Section 7.3
x	x	7.3	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	Section 7.4
x	x	7.3	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	7-5	Section 7.4
x	x	7.3	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 6.10 and 7.2.2
x	x	8	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	n/a	See Chapter 8 and Appendix G
x	x	8	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	n/a	Section 7.4
x	x	8.2	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	Section 8.5
x	x	8.2	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	Section 8.5
x	x	8.3	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% 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	See Section 8.2 and Appendix G
x	x	8.3	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	8-1	Section 8.2
x	x	8.4	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	8-2	Section 8.3
x	x	8.4	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	8-3	Section 8.4
x	x	8.4	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	8-2	Section 8.9
x	x	8.4	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	Table 8-3	Section 8.4
x	x	8.4	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	Section 8.3 and 8.4
x	x	8.4	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency plan	n/a	Section 8.7
x	x	8.5	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	See Appendix G
x	x	8.5	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	See Appendix G
x	n/a	8.6	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	See Appendix G
x	x	8.7	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	See Appendix G
x	x	8.7	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	See Appendix G
x	x	8.7	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	See Appendix G
x	x	8.8	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	Section 8.8
x	x	8.8	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	Section 8.8
x	n/a	8.8	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	Section 8.8
x	n/a	8.9	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	Section 8.9
x	x	8.10	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	Section 8.9
x	n/a	8.11	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	See Appendix G
x	x	8.12	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	Section 8.11
x	n/a	9.1	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	Chapter 9
n/a	x	9.2	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	N/A
x	n/a	10	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	Section 10.3
x	x	10.2	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 Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan adoption, submittal, and implementation	10-1	Section 10.2.1
x	x	10.4	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	Plan adoption, submittal, and implementation	n/a	Section 10.4.1

x	x	10.2	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan adoption, submittal, and implementation	n/a	Section 10.2.2, Section 10.3, See Appendix B
x	x	10.2	Section 10.2.2	10642	The 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 10.2.1
x	x	10.3	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	n/a	See Section 10.3, Appendix L
x	x	10.4	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	n/a	Section 10.4.3 (See Commitment to Distribute in Appendix B)
x	x	10.4	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their 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 10.4.4 (See Commitment to Distribute in Appendix B)
x	x	10.4	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	n/a	Section 10.4.2 and 10.6
x	x	10.7	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	n/a	Section 10.6
x	x	10.5	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 10.5 (See Commitment to Distribute in Appendix B)
x	x	10.5	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its WSCP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	Section 10.5 (See Commitment to Distribute in Appendix B)
x	x	10.6	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	N/A

APPENDIX L

CITY ADOPTION RESOLUTIONS

To be included with Final Urban Water Management Plan.


In-Stream/River
Canal/Pipeline
Delta Boundary
Redding
Upper Feather
Oroville
Oroville-Thermalito
Sacramento
North Bay
San Francisco
South Bay
San Luis
Fresno

carollo

TITLE
Voting Delegate and Alternate(s) for the League of California Cities 2026 Annual Business Meeting

RECOMMENDATION
Approve by Minute Order a Voting Delegate and Alternate(s) for the League of California Cities 2026 Annual Business Meeting.

CONTACT
Taresa Geilfuss, City Clerk

BACKGROUND & ANALYSIS
The League of California Cities 2026 Annual Conference and Expo will be held on September 23-25, 2026. The General Assembly (Annual Business Meeting) is scheduled for Friday, September 25, 2026. At this meeting, the League membership considers and takes action on resolutions that establish League policy.

In order to vote at the General Assembly, the City Council must designate a Voting Delegate and up to two (2) alternate voting delegates, one of whom may vote in the event that the designated voting delegate is unable to serve in that capacity. To be eligible to vote, the delegate and alternates must be registered to attend the conference.

The League has requested that voting delegate information be transmitted to the League as soon as possible and no later than September 1, 2026.

COUNCIL PRIORITY PROGRAMS AND PROJECTS
Not applicable.

FISCAL IMPACT
There is no fiscal impact to designating a voting delegate.

ENVIRONMENTAL REVIEW
Not Applicable.

COMMUNICATION

Level 0: No Further Public Communication Needed

ATTACHMENTS:

2026 Voting Delegate Information Packet

LEAGUE OF CALIFORNIA CITIES

Council Action Advised by September 1, 2026

DATE: Wednesday, May 13, 2026

TO: Mayors, Council Members, City Clerks, and City Managers

RE: DESIGNATION OF VOTING DELEGATES AND ALTERNATES
League of California Cities Annual Conference and Expo, Sept. 23-25, 2026
Anaheim Convention Center

Every year, the League of California Cities convenes a member-driven General Assembly at the Cal Cities Annual Conference and Expo. The General Assembly is an important opportunity where city officials can directly participate in the development of Cal Cities policy.

Taking place on Friday, Sept. 25, 2026 the General Assembly is comprised of voting delegates appointed by each member city; every city has one voting delegate. Your appointed voting delegate plays an important role during the General Assembly by representing your city and voting on resolutions.

To cast a vote during the General Assembly, your city must designate a voting delegate and up to two alternate voting delegates, one of whom may vote if the designated voting delegate is unable to serve in that capacity. Voting delegates may either be an elected or appointed official.

Action by Council Required. Consistent with Cal Cities bylaws, a city's voting delegate and up to two alternates must be designated by the city council. Please note that designating the voting delegate and alternates **must** be done by city council action and cannot be accomplished by individual action of the mayor or city manager alone.

Following council action, please submit your city's delegates through the online submission portal by Tuesday, Sept. 1, 2026. When completing the Voting Delegate submission form, you will be asked to attest that council action was taken. You will need to be signed in to your My Cal Cities account when submitting the form.

Submitting your voting delegate form by the deadline will allow us time to establish voting delegate/alternate records prior to the conference and provide pre-conference communications with voting delegates.

Conference Registration Required. The voting delegate and alternates must be registered to attend the conference. They need not register for the entire conference; they may register for Friday only. Conference registration opens June 2.

For a city to cast a vote, one voter must be present at the General Assembly and in possession of the voting delegate card and voting tool. Voting delegates and

alternates need to pick up their conference badges before signing in and picking up the voting delegate card at the voting delegate desk. This will enable them to receive the special sticker on their name badges that will admit the voting delegate into the voting area during the General Assembly.

Please view Cal Cities' event and meeting policy in advance of the conference.

Transferring Voting Card to Non-Designated Individuals Not Allowed. The voting delegate card may be transferred freely between the voting delegate and alternates, but *only* between the voting delegate and alternates. If the voting delegate and alternates find themselves unable to attend the General Assembly, they may *not* transfer the voting card to another city official.

Seating Protocol during General Assembly. At the General Assembly, individuals with a voting card will sit in a designated area. Admission to the voting area will be limited to the individual in possession of the voting card and with a special sticker on their name badge identifying them as a voting delegate.

The voting delegate desk, located in the conference registration area of the Anaheim Convention Center, will be open at the following times: Wednesday, Sept. 23, 8:00 a.m.-6:00 p.m. and Thursday, Sept. 24, 7:30 a.m.-4:00 p.m. On Friday, Sept. 25, the voting delegate desk will be open at the General Assembly, starting at 7:30 a.m., but will be closed during roll calls and voting.

The voting procedures that will be used at the conference are attached to this memo. Please share these procedures and this memo with your council and especially with the individuals that your council designates as your city's voting delegate and alternates.

Once again, thank you for submitting your voting delegate and alternates by Tuesday, Sept. 1. If you have questions, please contact Zach Seals at zseals@calcities.org.

Attachments:

- General Assembly Voting Guidelines
- Information Sheet: Cal Cities Resolutions and the General Assembly

LEAGUE OF CALIFORNIA CITIES

General Assembly Voting Guidelines

1. **One City One Vote.** Each member city has a right to cast one vote on matters pertaining to Cal Cities policy.

2. **Designating a City Voting Representative.** Prior to the Cal Cities Annual Conference and Expo, each city council may designate a voting delegate and up to two alternates; these individuals are identified on the voting delegate form provided to the Cal Cities Credentials Committee.

3. **Registering with the Credentials Committee.** The voting delegate, or alternates, may pick up the city's voting card at the voting delegate desk in the conference registration area. Voting delegates and alternates must sign in at the voting delegate desk. Here they will receive a special sticker on their name badge and thus be admitted to the voting area at the General Assembly.

4. **Signing Initiated Resolution Petitions**. Only those individuals who are voting delegates (or alternates), and who have picked up their city's voting card by providing a signature to the credentials committee at the voting delegate desk, may sign petitions to initiate a resolution.

5. **Voting.** To cast the city's vote, a city official must have in their possession the city's voting card and voting tool; and be registered with the credentials committee. The voting card may be transferred freely between the voting delegate and alternates but may not be transferred to another city official who is neither a voting delegate nor alternate.

6. **Voting Area at General Assembly.** At the General Assembly, individuals with a voting card will sit in a designated area. Admission to the voting area will be limited to the individual in possession of the voting card and with a special sticker on their name badge identifying them as a voting delegate.

7. **Resolving Disputes**. In case of dispute, the credentials committee will determine the validity of signatures on petitioned resolutions and the right of a city official to vote at the General Assembly.

LEAGUE OF CALIFORNIA CITIES

How it works: Cal Cities Resolutions and the General Assembly

Developing League of California Cities policy is a dynamic process that engages a wide range of members to ensure Cal Cities represents cities with one voice. These policies directly guide Cal Cities' advocacy to promote local decision-making, and lobby against statewide policies that erode local control.

The resolutions process and General Assembly is one way that city officials can directly participate in the development of Cal Cities policy. If a resolution is approved at the General Assembly, it becomes official Cal Cities policy. Here's how resolutions and the General Assembly work.

Prior to the Annual Conference and Expo

General Resolutions

Sixty days before the Annual Conference and Expo, Cal Cities members may submit policy proposals on issues of importance to cities. The resolution must have the concurrence of at least five additional member cities or individual members.

Policy Committees

The Cal Cities President assigns general resolutions to policy committees where members review, debate, and recommend positions for each policy proposal. Recommendations are forwarded to the Resolutions Committee.

During the Annual Conference and Expo

Petitioned Resolutions

The petitioned resolution is an alternate method to introduce policy proposals during the annual conference. The petition must be signed by voting delegates from 10% of member cities, and submitted to the Cal Cities President at least 24 hours before the beginning of the General Assembly.

Resolutions Committee

The Resolutions Committee considers all resolutions. General Resolutions approved[1] by either a policy committee or the Resolutions Committee are next considered by the General Assembly. General resolutions not approved, or referred for further study by both a policy committee and the Resolutions Committee do not go to the General Assembly. All Petitioned Resolutions are considered by the General Assembly, unless disqualified.[2]

General Assembly

During the General Assembly, voting delegates debate and consider general and petitioned resolutions forwarded by the Resolutions Committee. Potential Cal Cities bylaws amendments are also considered at this meeting.

Who's who

Cal Cities policy development is a member-informed process, grounded in the voices and experiences of city officials throughout the state.

The **Resolutions Committee** includes representatives from each Cal Cities diversity caucus, regional division, municipal department, and policy committee, as well as individuals appointed by the Cal Cities president.

Voting delegates are appointed by each member city; every city has one voting delegate.

The **General Assembly** is a meeting of the collective body of all voting delegates —one from every member city.

Seven **policy committees** meet throughout the year to review and recommend positions to take on bills and regulatory proposals. Policy committees include members from each Cal Cities diversity caucus, regional division, and municipal department, as well as individuals appointed by the Cal Cities president.

[1] The Resolution Committee can amend a general resolution prior to sending it to the General Assembly.
[2] Petitioned Resolutions may be disqualified by the Resolutions Committee according to Cal Cities Bylaws Article VI. Sec. 5(f).

For more information visit www.calcities.org/general-assembly

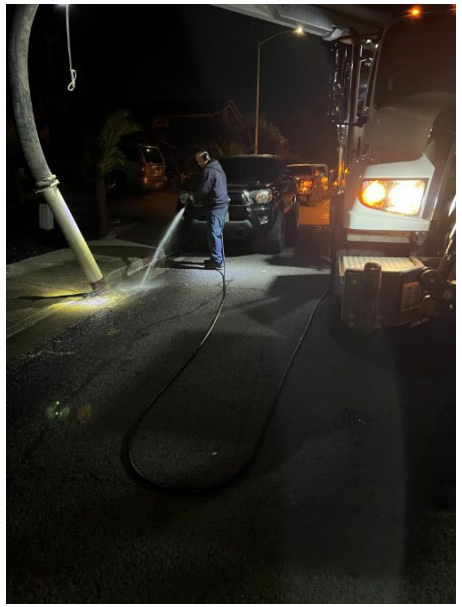
CITY OF AMERICAN CANYON

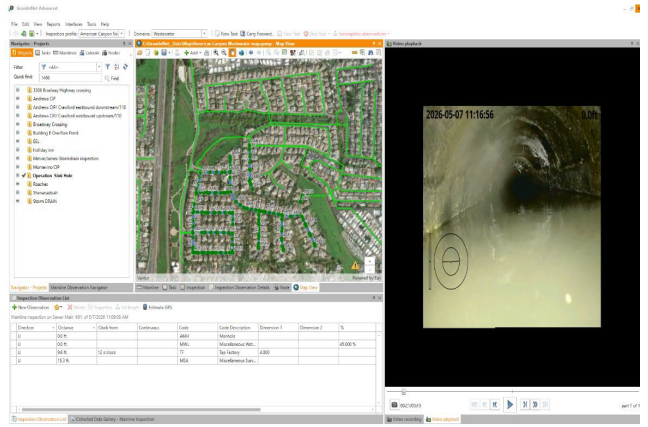
Water Reclamation Facility and Sewer Collections

August 18, 2026

Sewer Collections 2026

- New Sewer Collections Supervisor, Fidel Lopez
- Manny Ramirez Passed his C 1
- Kelly Lockhart passed his D2
- Over 30,000 feet of sewer mains cleaned
- CCTV inspections using GraniteNet Software at Montevino, America, and Entrada Subdivisions
- Cleaned up two spills with a reported 47 gallons
- Vacuuming out pump stations quarterly

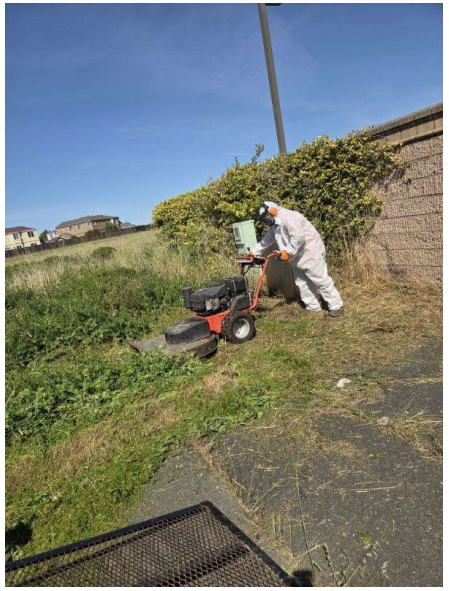






Sewer Collections 2026

- Performing weed abatement around pump stations, lift stations and secluded manholes





- Underground airline repair at the WRF

- 1 lower lateral repaired at 1439 Rio Grande



Wastewater Operations

- Martha Harp Passed Grade V
- Tree clearing complete for the Future High Strength waste facility
- SCADA upgrade project completed
- Started membrane replacement of our final two treatment trains
- Biosolids removal project completed
- Treated 290MG as of June 30th
- Made 74.1MG R.W.







WRF Current and Future projects

- Updated Facility Evacuation Plan
- Completing SOP updates for the Facility
- Starting a facility painting project
- U.V Rehab Phase 2 and 3
- Rehabilitation of RW Tank
- Full Implementation of CMMS underway

CITY OF AMERICAN CANYON

Water Treatment Plant and Water Distribution

August 18, 2026

Water Distribution 2026

- Performing meter installation, valve maintenance, water service repairs, CIP and DV projects.
- Completed Annual Hydrant Flushing.
- Completed 3 underground water main repairs.
- Upgraded to solar-powered active cathodic protection at the Water Treatment Plant Tank and Oat Hill Tank to improve water quality, protect infrastructure, and support renewable energy.
- Installed recycled irrigation to the Little League Baseball Field. The volume of potable water conserved from the Little League Recycled irrigation project is 5 Acre-Feet (AF) per year.







Water Treatment Projects

- New Water Treatment Plant Operator II, Raymon Fernando.
- Established a new coagulant for both treatment plants, achieving DBP compliance while reducing treatment costs by approximately $700,000 in FY 2025/26 compared to FY 2024/25.
- SCADA Upgrade Project in progress.
- Annual Sludge Pond Removal completed.
- Sludge Press Pilot Study completed.
- Geotech analysis completed.







Water Treatment Operations and Maintenance

- Annual Plant Shutdown and Maintenance completed.
- Replaced four water quality analyzer pumps.
- Installed one 4" meter for reclaim pond
- Repaired screens on all open-end pipes.
- Replaced air-dryer for membrane plant.
- Repaired gaskets, hinges and locks on CVP Clearwell.
- Added or replaced vacuum breakers on all hose bibs.







CITY OF AMERICAN CANYON

Environmental Services Division

August 18, 2026

Environmental Programs

- Cash for Grass
  - FY2025/26
    - 10 Projects, 7,227 sq.ft turf removed, $6,227 rebates
    - 7 Projects in progress
- Toilet Rebate
  - FY2025/26
    - 20 toilets replaced, $2,000 rebates
- Updating:
  - Enforcement Response Plan
  - Environmental Services Desk Manual
    - Job Aid/SOP for all tasks in the ES Division





WRF NPDES Permit Summary

1. Water Reclamation Facility
   - NPDES (National Pollutant Discharge Elimination System)Permit Expires July 2027
     - Kick off meeting with Larry Walker and Associates July 9, 2026
       - Report of Waste Discharge
       - Application for renewal
     - Quarterly Chronic Toxicity Species Screening Testing
   - Self Reported Violation – May 2026
     - Discharge to North Slough
   - Regional Water Quality Control Board Site Audit
     - June 2, 2026
2. Recycled Water
   - 60 Commercial Users
     - Updated Permits, quarterly report submittals, Annual Site Inspections
   - 40 City Users (parks, walkways, etc)
   - City employees receive yearly spill reporting training
3. Backflow Administration



Solid Waste

- Route Reviews
  - 305 residential addresses visited
  - 671 lid flips
  - 46% overall contamination

- Top 3 Contaminants per container type:

  Landfill: Paper, Food, Paper Towels

  Compost: Plastic Liner Bags, Loose plastic film

  Recycle: Loose Plastic Film, Paper Towels, Plastic Liner Bags

- Hydration Station
  - Watershed Explorers, Meet Me in the Streets, 4th of July
  - 1000 Plastic bottles saved







CWEA Regional Tour at WRF

- 3 Regional Sections
  - Redwood Empire
  - Sacramento
  - San Francisco
- 100+ Participants for Tour
- 100% participation from WRF Staff















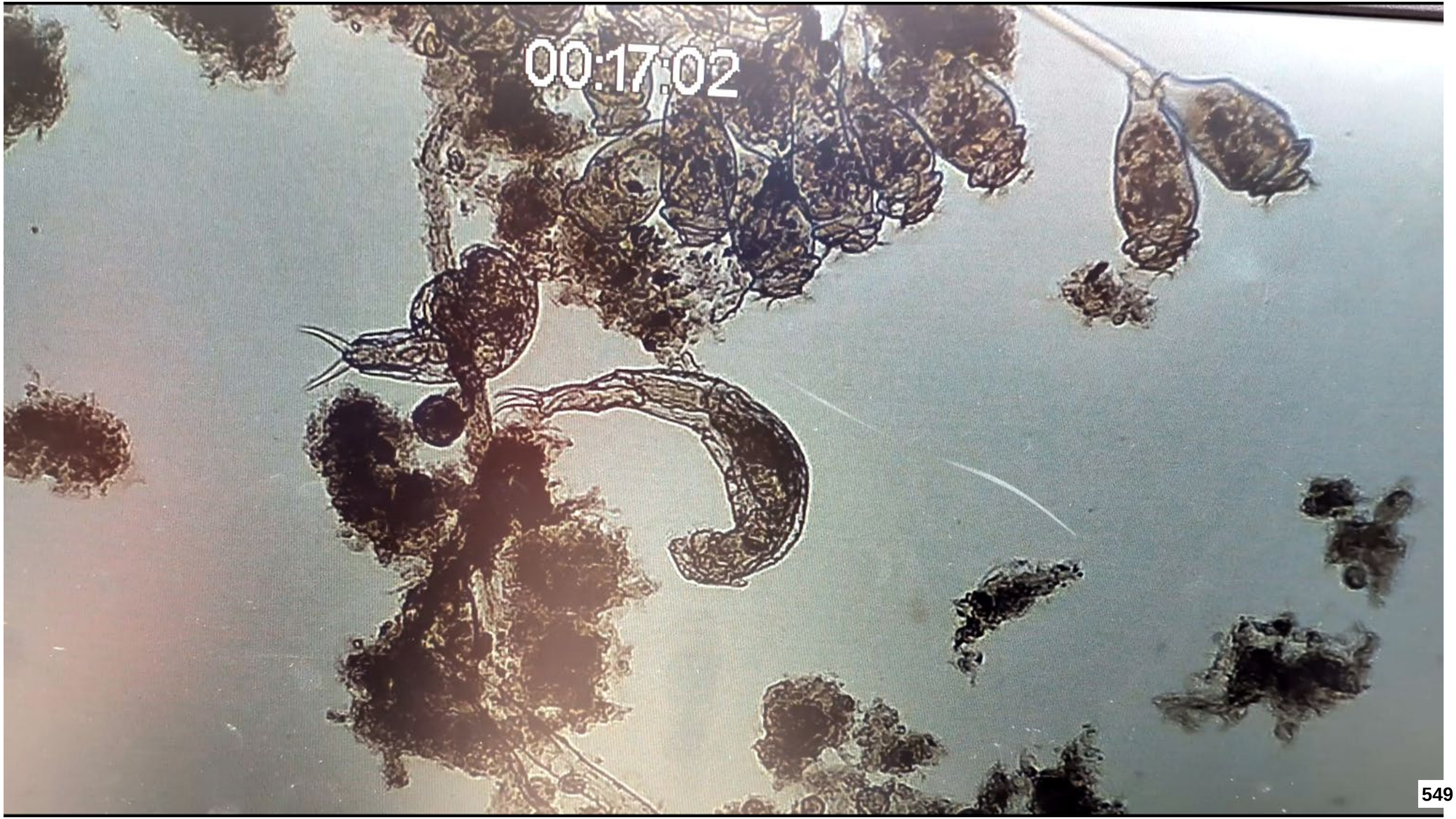






Outreach and Collaboration

- Meet Me in the Streets
- Napa Co Office of Education 8th gr Career Expo
- Watershed Explorers Field Day (ACCPF)
- Compost Classes
- Citizens Academy at ACHS
- Launch Your Future – ACHS Job Fair
- ACHS AP Environmental Science
- Wastewater Treatment
- Presented at the CWEA Annual Conference


00:17:02

CITY OF AMERICAN CANYON

Any Questions

Thank You

CITY COUNCILMEMBER REPORT

Council Meeting Date: 08/18/2026

Submitted by: * Mayor Pierre Washington

Event Date: 04/08/2026

Event Type Committee Report

Event Title: Napa Flood Control & Water District Special Meeting

Event Report: On August 4, 2026, I attended a Special Meeting of the Napa County Flood Control and Water Conservation District Board. During the meeting, the Board convened in Closed Session to discuss matters related to properties potentially impacted by the proposed flood wall design. The discussion focused on property-related considerations associated with the project and the District's ongoing efforts to evaluate and advance flood protection improvements within the affected area.

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Event Date: 04/08/2026

Event Type Conference

Event Title: Conference with resident

Event Report: On August 4, 2026, City Manager Jason Holley and I met with longtime American Canyon resident Ladeena Ford to discuss historical agreements and understandings related to the Watson Lane sewer line. The meeting provided an opportunity to listen to Ms. Ford's concerns, review the background of the matter, and better understand the history and context associated with the property and infrastructure issues she raised. We appreciated the opportunity to engage in a constructive dialogue and hear her perspective regarding this longstanding issue.

Upload File or Picture (20 MB MAX)

Event Date: 04/08/2026

Event Type Community Event

Event Title: AC National Night Out

Event Report: August 4, 2026**:** I participated, along with my council colleagues in National Night Out activities throughout American Canyon, attending 8 of the City's 11 neighborhood celebrations. The event provided an excellent opportunity to engage directly with residents, strengthen relationships between the community and public safety personnel, and recognize the efforts of neighborhood leaders who help foster safe, connected, and resilient neighborhoods. I appreciated the opportunity to meet with community members, listen to their concerns, and celebrate the strong sense of community that makes American Canyon a special place to live.

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Event Date: 10/08/2026

Event Type Conference

Event Title: 1:1 with ACPF Director Janelle Sellick

Event Report: August 10, 2026: I met with American Canyon Parks Foundation (ACPF) Director Janelle Sellick to discuss the status of the American Canyon Eco Center. Our conversation focused on the progress of the project, current challenges and opportunities, and the Foundation's ongoing efforts to advance the Eco Center as a community resource for environmental education, sustainability, and public engagement. I appreciated the opportunity to receive an update and discuss ways to support the project's continued development.

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Event Date: 11/08/2026 **Event Type** Conference

Event Title: Marshall Farm appraisal Review with family members

Event Report: August 11, 2026**:** City Manager Jason Holley and I met with family members of Spencer Marshall and representatives of the Honey Farm to discuss an appraisal that was conducted at their request. The meeting provided an opportunity to review the appraisal findings, answer questions, and discuss the property's valuation and related considerations. We appreciated the opportunity to engage in a constructive dialogue, listen to the family's perspectives, and provide clarification regarding the appraisal process and its purpose.

Upload File or Picture (20 MB MAX)

Event Date: 11/08/2026 **Event Type** Conference

Event Title: Lemos appraisal Review with family members

Event Report: August 11, 2026: City Manager Jason Holley and I met with the executors of the Lemos property to review and discuss an appraisal that was conducted at their request. The meeting provided an opportunity to answer questions, explain the appraisal process and findings, and discuss matters related to the property's valuation. We appreciated the constructive dialogue and the opportunity to hear the executors' perspectives while providing clarity regarding the City's role and the purpose of the appraisal.

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Event Date: 11/08/2026 **Event Type** Committee Report

Event Title: AC Fire District Fee Board of Review

Event Report: August 11, 2026**:** I convened and chaired a meeting of the American Canyon Fire Service Fee Board of Review with Board Members Beth Marcus and Michael Tadewald, along with Acting Fire Chief Cliff Campbell. The Board conducted a public hearing regarding property owner appeals of the Annual Fire Service Fee calculations for Fiscal Year 2026-2027. Staff presented information on the Fire Service Fee program and appeal process, and the Board reviewed the status of any submitted appeals. Following the public hearing and discussion, the Board took action consistent with its responsibilities under the Fire Service Fee Ordinance and approved the meeting minutes as appropriate.

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Event Date: 12/08/2026 **Event Type** Community Event

Event Title: Back to school, first day of NVUSD

Event Report: August 12, 2026**:** I visited schools throughout American Canyon to welcome students, teachers, staff, and parents back for the start of the new academic year. As students returned from summer break for their first day of school, I had the opportunity to observe the

excitement and energy that accompanies a new school year, thank our educators and school employees for their dedication, and wish students success in the months ahead. It was a privilege to support our schools and recognize the important role they play in shaping the future of our community.

Upload File or Picture (20 MB MAX)

Event Date: 12/08/2026

Event Type Community Event

Event Title: Meet me in the Streets # 3 of 2026

Event Report: August 12, 2026: I attended the American Canyon Chamber of Commerce's Meet Me in the Street community event, which brought together residents, local businesses, food vendors, artisans, musicians, and community organizations for an evening of entertainment and fellowship. The event featured a variety of food vendors, arts and crafts, live music, dancing, and opportunities for neighbors to connect and socialize.

Kudos once again to the American Canyon Chamber of Commerce, event sponsors, vendors, city staff and the many volunteers whose hard work and dedication made this event a success. Their efforts continue to strengthen community connections and showcase the vibrant spirit that makes American Canyon such a special place to live, work, and visit.

Upload File or Picture (20 MB MAX)

Event Date: 14/08/2026

Event Type Conference

Event Title: Meeting with the Mayor of Yountville and the Development Director

Event Report: August 14, 2026: I met with Yountville Mayor Margie Mohler and Community Development Director Beverly Wilmore to discuss the many development projects and growth initiatives occurring in American Canyon. Our conversation focused on the City's ongoing development activity, economic growth, infrastructure improvements, and planning efforts that continue to shape the future of our community. The meeting provided an excellent opportunity to share information, strengthen regional partnerships, and discuss issues of mutual interest affecting our neighboring jurisdictions.

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Event Date: 17/08/2026

Event Type Conference

Event Title: Juneteenth Committee meeting

Event Report: August 17, 2026: I met with members of the Juneteenth 2027 Planning Committee to follow up on preparations for next year's Juneteenth celebration. Our discussion focused on lessons learned from prior events, preliminary planning efforts, potential partnerships, community engagement strategies, and opportunities to make the 2027 celebration meaningful, inclusive, and successful. I appreciate the committee's dedication and continued commitment to honoring the significance of Juneteenth while bringing the community together through education, culture, and fellowship.

Upload File or Picture (20 MB MAX)

Future Agenda Items

August 27, 2026, Planning Comm. 6:30 p.m.
Rural Neighborhood Home Occupation Standards

September 1, 2026, City Council 6:30p
Proclamation: Hispanic Heritage Month
Proclamation: Suicide Prevention Month
Presentation: American Canyon Library Update
Rezoning Changes First Reading
Density Bonus, Inclusionary Ordinance, and ADU Ordinance First Reading
Ag Use Ordinance: First Reading
Measure B Position
Napa Olympia Mobilehome Mediator

September 2, 2026, OSATS Meeting. 6:30 p.m.
Napa County BayREN Home Energy Savings
Reusable Foodware Ordinance

September 3, 2026, Finance Subcom. 1:00 p.m.
5 Year Budget

September 10, 2026, PCS, 6:30 p.m.
Active Adult Program Fee Waiver Policy
Municipal Code Chapter 2.29 and Guidelines

September 15, 2026, City Council 6:30 p.m.
Proclamation: Community Planning Month
Proclamation: National Recovery Month
NVTA SR29 Multi-Modal Project Local Funding Commitment
Rural Neighborhood Home Occupation Ordinance: First Reading
Urban Water Management Plan
Water Treatment Plant Filter Media Replacement & Underdrain Repair (WA23-0200)
TIF Program Update: Award to Fehr and Peers
Q1 CIP Update

September 24, 2026, Planning Comm. 6:30p.
Promontory TSM and WRSPA

October 6, 2026, City Council 6:30 p.m.
Proclamation: Domestic Violence Awareness
Proclamation: Filipino American Heritage
BDSP Facilitate Development Workshop
Q2 CIP Update

October 7, 2026, Joint OSATS & PCS 6:30p
E-Bike Ordinance

October 8, 2026, PCS 6:30 p.m.
Cancelled

October 20, 2026, City Council 6:30 p.m.
Proclamation: Code Compliance Month
Proclamation: Veteran's Day
Promontory TSM and WRSPA

October 22, 2026, Planning Comm. 6:30 p.m.
TBD

November 3, 2026, City Council 6:30 p.m.
Cancelled Due to Election

November 4, 2026, OSATS. 6:30 p.m.
Residential Tree Program
Reusable Foodware Ordinance
E-bike Ordinance

November 12, 2026, PCS 6:30 p.m.
Community Grant Program Recipients
Presentations Update

November 17, 2026, City Council 6:
Proclamation: Acknowledging Diwali

Unscheduled Council Directed Items			
Item	**Councilmember**	**Date of Vote**	**Notes**
Food Ware Ordinance	Joseph	09/17/2024	OSATS 9/2
Purple Heart Designation	Washington	10/15/2024	TBD
Operating Budget (5Y Plan)	Joseph	06/02/2026	Finance Subcommittee 9/3
Add Quarterly Circulation Update Report	Joseph	06/02/2026	TBD
Economic Development in Industrial Park	Jospeh	08/04/2026	TBD